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Weixin Huang

Economic Integration as a Development Device

The case of the EC and China

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ECONOMIC INTEGRATION AS A DEVELOPMENT DEVICE

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THE CASE OF THE EC AND CHINA

een wetenschappelijke proeve
op het gebied van de beleidswetenschappen

Proefschrift
ter verkrijging van de graad van doctor aan de
Katholieke Universiteit Nijmegen,
volgens besluit van het College van Decanen
in het openbaar te verdedigen op
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WEI XIN HUANG

geboren op 10 januari 1948
te Shanghai (China)

Promotores: Prof. dr. J.M.G. Kleinpenning
Prof. drs. J.G. Waardenburg (EUR)

PREFACE

My residence in Europe gave me the opportunity to experience EC integration practice from within and gain some firsthand impressions. During my stay in Europe and when I visited the headquarters of the EC in Brussels, a question lingering in my mind was why was it possible for several countries to integrate but difficult for several provinces to co-ordinate? There must be some basic principles and mechanisms lying behind the integration process which make economic integration possible and there must be something which can guarantee the integration scheme. Consequently, the idea occurred to me that it could be worthwhile to look into the experience of EC integration as an outsider and get some insights relevant to integration within China. This idea led to this study.

Obviously, the help I got from my two promoters has been crucial to the success of this research. I have benefitted a lot from Professor J.M.G. Kleinpenning's careful reading of my earlier drafts and by his detailed suggestions. I would like to quote here one of his Phd students "one could wish every Phd student such a supervisor". Professor J.G. Waardenburg has had numerous discussions with me on the topic and I have benefitted from his strategic comments, especially the comments on the empirical part. I must also mention the help and the support I got from both universities: the Catholic University of Nijmegen and the Erasmus University of Rotterdam, as well as from the Commission of the EC Communities in Brussels.

For several years I have been working as the first Fellow under the Shanghai-Rotterdam exchange programme in the Centre for Development Planning in Erasmus University Rotterdam. I am so familiar with the TB building that it can never be erased from my memory. Dr.W.M.Lammerts van Bueren has also contributed much to my stay at the Erasmus University. At the final stage for the present study, the financial support from Bank Mees & Hope and, in particular, the understanding and support of Mr.Robert Speelman was crucial.

Among those who have discussed this topic with me I should certainly mention Audrey Donnithorne whose pilot work on the topic gave me many important insights. I am also impressed by her love of China and her kindness in helping. Thomas P. Lyons has also carefully read my earlier draft and gave me detailed and helpful comments.

In fact some of the ideas in this study were encouraged by and matured during the discussions with many scholars in Holland and abroad and the list below represents only some of them: Prof.J. Tinbergen,

Drs.Schmidt and Prof. H.C. Bos at the Erasmus University Rotterdam, Professor H.W. de Jong and Prof. Peter Coffey at the University of Amsterdam, Professor Chung-hsun Yu at the International University of Japan, Professor George Thoma in Elmhurst College, U.S., and Professor Ali EL-Agraa at the University of Leeds. I am particularly grateful to Professor W.T.M. Molle, who encouraged me to systematically investigate this topic and whose knowledge about EC integration impressed me very much. Whilst the comments from all the above mentioned people have been helpful, the responsibility of any error in the text remains solely mine.

For preparing the final version, my sincere thanks should go to Erik Baumann who helped to arrange the lay-out and the Dutch summary, to Mrs.Angela Needhem who has carefully edited the text, and to AV-service KUN/AZN in Nijmegen Catholic University which prepared the maps of the book.

Last but not least, I should mention my wife and son whom I owe extra due to my concentration on the study.

Weixin Huang,
February 1992 Rotterdam

CONTENTS

TECHNICAL NOTES

Currency equivalents

Renminbi (RMB) is the Chinese currency denominated in yuan.
1 yuan = 10 jiao = 100 fen
the official exchange rate: US$1=544.14 yuan (February 1,1992)

Transliteration

The Pinyin system is used in this study.

Terminology

"Economic Zone" in the text is the name for economic subdivision in China. Apart from the Shanghai Economic Zone which was established in 1982, there are also other economic zones in China. "Special Economic Zone" is the term used for cities given special policies to attract foreign investment, such as Shenzhen Special Economic Zone, Amoi Special Economic Zone etc.

The word "province" in this study has a broad coverage, including not only designated provinces but also the three province-level "directly ruled cities" (Shanghai, Beijing and Tianjin) and several minority "autonomous regions" such as Tibet.

Tables

n.a. indicates "not available".

Some tables are based on the author's investigation. For these tables the source is expressed as "provided to the author". The tables the sources of which are not mentioned are those made by the author.

LIST OF TABLES

LIST OF MAPS

LIST OF ABBREVIATIONS

CCP	Chinese Communist Party
COMECON	Council for Mutual Economic Aid
EC	European Communities
ECSC	European Coal and Steel Community
EUA	European Account Unit
ECU	European Currency Unit
EEC	European Economic Community
EMS	European Monetary System
EMF	European Monetary Fund
Euratom	European Atomic Energy Community
FFY	First Five Year Plan
Rmb	Renminbi (the Chinese domestic currency)

INTRODUCTION

> China forms a Customs Union but not a Common Market. That is to say, the whole country has common trade barriers against the outside world, but does not have free trade within its national boundaries.
>
> Audrey Donnithorne: China's Cellular Economy (China Quarterly No.52 p.605.)

This study deals with the economic integration issue in China, particularly in the Shanghai Economic Zone.

The term "economic integration" is, in most cases, used in an international setting and refers to regional groupings. However, as an instrument for development, economic integration can be used in a domestic setting too. By encouraging specialization and competition, and by achieving economies of scale in a wider market, economic integration can bring benefits not only to several countries but also to several provinces within a country. This is the basic starting point for the whole book.

The hypothesis throughout the study is that China is not integrated economically and this results in economic losses. As a matter of fact, the economic integration issue in the Chinese economy in general and in the Shanghai Economic Zone in particular has never been examined systematically at home or abroad. This is probably due to the lack of data - the Zone has been more or less an experiment - and to the difficulty of conducting fieldwork in researching the subject. Some studies of the Chinese economy and the economic system have touched upon the nature of the Chinese economy. Alexander Eckstein's China's Economic Revolution and Audrey Donnithorne's China's Economic System are two examples. Although these books are useful as background information on the subject, they cannot substitute for researching the integration issue.

Thomas P.Lyons (1987) has raised the issue of economic integration in the Chinese economy and his book gives insights to the understanding of the integration issue in China. His book was written, however, with particular reference to the period before Mao's death when the economic zone issue was not at schedule. The attempt to study the integration issue in China along the lines mentioned above can therefore be considered to be a worthwhile effort.

Obviously the limited scope of the present study does not allow a comprehensive investigation of the integration issue in China. In view of the present state of the data and the understanding of the integration issue in China, I decided to limit my research to one specific part of China: the Shanghai Economic Zone which includes Shanghai and five other provinces. The objective of the research is two-fold: to acquire further understanding of the integration issue in China and to link the issue to the larger framework of integration theory and practice.

To those who have studied China's economic and social history, it is obvious that there are many differences between provinces, regions and even villages. Several hundred years ago there were so many "kingdoms" in China. Obvious differences between town and county, between mountains and plains, have to be bridged to obtain an integral picture of the economy. Furthermore, for quite a long time, China's natural regions have been artificially split by the administrative boundaries and the whole economy has been vertically organized. What one finds is a politically and economically divided China before 1949 and a politically united but still economically fragmented China after 1949. The diversity still remains and is essential for deriving benefits from possible integration. For a fuller exploitation of the country's natural resources - as has been suggested by many economists - there should be more economic integration in the Chinese economy, possibly at a regional level in the form of regional zones, which may be called economic zones and are other than the administrative subdivisions. This may imply that the economy should be restructured on a regional basis, or, to put it in another way, regional economic integration should be stimulated.

Analytically, economic integration is "the elimination of economic frontiers between two or more economies", and "economic frontier" is defined as "any demarcation over which mobilities of goods, services and production factors are relatively low" (Jacques Pelkmans, 1984). If such economic frontiers (not necessarily territorial frontiers) have existed in Western Europe, we may well say that there have been and still are economic frontiers within China as well.

Firstly, the administrative frontiers are barriers which retard the movement of products and production factors.[1] The most important point

[1]. The whole country is divided into provinces, autonomous regions and municipalities. Provinces and autonomous regions are further divided into autonomous prefectures, counties, autonomous counties and cities, and counties are divided into towns and townships.

here is that the local authorities usually have a self-sufficiency policy and such a policy of local protectionism pursued by the provincial or municipal authorities fragments the market.

Secondly, the sectoral planning hierarchy also fragments the market. All economic sectors within the economy are organized into vertical national bureaucracies, headed by ministries, located in Beijing. The ministers representing the interests of the ministries have some decision-making power concerning the economic activities in the respective ministries. The importance of provincial boundaries as barriers depends on the relative importance of the provinces versus the ministries. China has had this sort of administrative and sectoral planning hierarchy with local protection for many years.

A still closer look at China's economy shows that there are both horizontal links and vertical links within the economy. The vertical links are those between the central agency and the local agency such as the links between the ministry and the local subordinate agency, whereas the horizontal links are those between the local units, such as the links between one city and another. While the vertical links are more concerned with the planned part of the economy, the horizontal links are more concerned with the unplanned part where market forces are active. The sector planning system and the provincial boundaries have cut off many horizontal links.

The empirical studies in Part 3 tend to support the hypothesis that China is not economically integrated and investigation into the industrial sector shows that there is duplication in investment and in production.

For the sake of efficiency it is obvious that economic integration is necessary. "China's sheer size and past emphasis on local self- sufficiency offer opportunities for large gains in national economic efficiency through increased specialization and trade among regions and between urban and rural areas" (World Bank 1982). This implies that economic integration in China will bring benefits. However, since China is too large to integrate all at once, the first step has to be integration at the regional level, i.e. to establish economic zones or integration within a region. Such integration will be a breakthrough in the traditional model of vertical hierarchy so as to stimulate productivity via a more rational allocation of resources. It is a device for further development.

In fact, "economic zones" or "economic regions" are not new innovations. As we know, a country may have economic subdivisions other than the administrative subdivisions. One example is the Federal Reserve System in the United States. The Federal Reserve System consists of several banking districts, which are not the same as the administrative subdivisions, i.e. states. Another example is to be found in France. In 1955,

at the suggestion of the General Planning Commission of France, a decree was promulgated to divide the country into 22 regions, which were called "programme regions".

Looking at regional grouping at international level we find that there are two models of economic integration: one is the EC model and the other is the COMECON model. Needless to say, for regional economic integration in China, EC integration is not the only model. COMECON - economic integration in Eastern Europe - could be relevant for regional integration in China, although COMECON has no longer existed. In general EC integration is virtually a "joint market" model, whereas the COMECON is more or less a "joint planning" model. Since the real problem which impedes the economic development of China is that "administrative structure, regardless of whether it is organized on a sectoral or geographical basis, fails to coincide with the objective needs of other economic activities",[2] to examine the theory and practice of economic integration in the EC is more relevant for the purpose of China's economic integration. That is what the author attempts to do in the present study.

As was mentioned at the beginning, if we regard integration as an instrument of development, i.e. as encouraging better allocation of resources, the theory and practice of international integration may also be useful in integrating units of the same economy. Obviously there is some relationship between integration among national economies and integration among units of the same economy. This kind of relationship between regional integration in China and economic integration in Western Europe is what interests this author. As a matter of fact, what links EC integration and integration in China are the three pillars of economic integration: economies of scale, division of labour and enhanced competition.

This study intends first to establish an analytical framework for integration and see how it works in the case of the EC, then to examine the integration issue in China and discuss some policy implications.

One article in the World Economic Herald pointed out:

> "The whole world is looking forward to 1992 when a new Europe with 3.2 hundred million population and more than 200 square kilometre territory will rise in the old European continent. The European countries, with different historical backgrounds, different

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[2].See Thomas P. Lyons Explaining Economic Fragmentation in China : A Systems Approach. He quoted Hu Qiao mu, former president of the Chinese Academy of Social Sciences p.223.

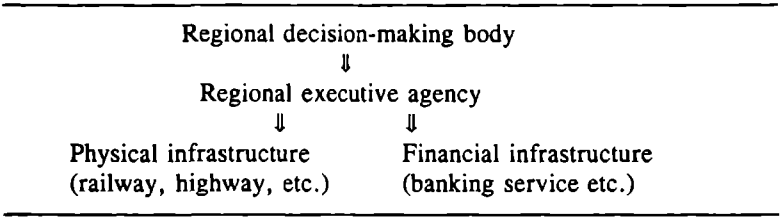
economic goals and different languages, will lift their internal barriers to cooperate and to coordinate to achieve scale economies.

Whereas Europe is pursuing an integrated and supranational market, China still has its "kingdom economy".[3] Recently, while we are having our economy decentralized, such a kind of "kingdom segment" or "feudal segment" becomes more serious.... The local authority tries to have dominating influence and have put up protective fences... these will lead to economic inefficiency. It is doubtless that all these are against modern development.

We should sum up the experience of our economic reform and that of foreign countries, actively promote economic integration to achieve scale benefits and optimize our economy."[4]

A theoretical approach ideally leads to generalization, and generalization always provides an analytical framework which is applicable to some practical problems. This is the essential idea of the present study.

To begin with, we may generalize the institutional arrangement of integration as follows:



[3]."Kingdom Economy" here refers to the fragmentation of the market with each "kingdom" dominating its economy without considering the benefits of the whole.

[4]. The World Economic Herald (418) p.5. November 21, 1988. Zhang Hong-wei Europe will rise as an integrated market; China should avoid building up inside fences

The power of a regional decision-making body either in the case of China's regional integration or in the case of European economic integration is limited. The extent to which the regional authority has decision-making power depends upon the willingness of members to diminish their own decision-making power which is to them one of the costs of economic integration. In the case of China's regional integration, the regional authority's decision-making power is more limited than that of the international integration authority as in the case of the EC integration. This is because all the regional authorities in China are under the control of the central government. On the other hand, the infrastructure, both physical and financial, is indispensable to any economic integration scheme because it is the basis of economic integration.

Behind the institutional arrangement is the theoretical framework which is summarized here:

Integration	Efficiency in Resource use	Net benefits
(factor mobility diffusion of technical knowledge wider market)	a. X-efficiency b. (static) allocative efficiency comparative advantage economy of scale etc. c. dynamic effects: optimal scale for new plants etc. d. efficiency of spatial structures	a. higher consumption b. more rapid growth etc.

The present study itself is an integration of three elements: a theoretical discussion on integration economics; an analysis of integration in the EC as a multi-country model; an analysis of integration in China, both theoretically and empirically.

The book is divided into three parts:

Part 1 is devoted to the theory and practice of economic integration as an analytical framework. The purpose of writing this part is to put the discussion of economic integration in China in a wider and systematic context and it is the basis for the whole study. In this part an analysis of the mechanism and principles of Western European economic integration will be presented.

Part 2 deals with the necessity of China's regional economic integra-

tion. The integration issue will be examined with particular focus on the integration in the Shanghai Economic Zone. The relevance of the experience of European integration to China's regional integration will be dealt with. Some recommendations for China's regional integration will be made as some of the findings of the study.

Part 3 analyzes the findings of the empirical study of integration in China. Attempts are made to test both by descriptive and statistical evidence the hypothesis that China is not integrated economically and that this entails economic losses.

There will be an epilogue to draw together the different aspects of the study and to highlight some conclusions.

PART 1

ECONOMIC INTEGRATION: AN ANALYTICAL FRAMEWORK

CHAPTER 1
THE ECONOMICS OF INTEGRATION

There is a large body of literature on the theory of economic integration, the core of which has been generally understood as being the theory of customs union. However, since our analytical framework will be used for studying regional integration in China as well, the literature on the assessment for customs union is irrelevant. The emphasis will then be shifted to the basic concepts and the rationale of integration as a development device.

The major points which the present chapter intends to analyze are as follows: What is economic integration? How is it related to economic development? How can we analyze the possible costs and benefits for any integration scheme? What is the framework within which we can best answer these questions?

Starting with the definition of economic integration, the discussion in this chapter will briefly give an explanation of why economic integration can be a device for economic development and will further elaborate on this explanation, incorporating both my own ideas on the subject and the relevant work of such writers as J.Tinbergen, Bela Balassa, Ali El-Agraa, Peter Robson etc.

1.1 Definition

"Integration" is a broad and ambiguous term. There is, in theory and practice, no general consensus about the term. According to Bela Balassa, economic integration usually refers both to a state of affairs characterized by the absence of various forms of discrimination among the integration partners, and to a process which includes all measures needed to abolish discrimination between economic units (Bela Balassa,1961).

Whilst this definition describes quite clearly the main characteristics of economic integration, there may be some confusion in the discussion by defining integration both as a process and as a state. For that reason, in the present study we prefer to define economic integration differently, namely, as a combination of separate economies both by removing discrimination and restrictions and by making some appropriate co-operative arrangements with the aim of ensuring that major economic and welfare objectives are

fulfilled [5]

This definition is preferable since it emphasizes that economic integration can be a potential device for promoting economic development As a matter of fact, economic integration involves the gradual removal of barriers between two or more economic entities, national or regional This bringing together of separate economies often consists of putting more or less explicitly on record some fundamental norms or rules for economic activities, and in delineating the area for which these norms or rules are valid The Treaty of Rome, norms for economic activities in the EC, can serve as an example in the context of European integration

Some theorists argue that economic integration is a dual-pronged process because "it amounts not only to the removal of discriminatory barriers, but also to the introduction of coordination and harmonization which ensure the optimal functioning and the development of the economy as a whole "[6] Therefore when examining the theoretical fundamentals of economic integration, two important concepts should be mentioned, namely, "negative integration" and "positive integration"[7], with the former referring to the removal of barriers and the latter to the introduction of coordination.[8] These two concepts distinguish different phases of integration, or different measures taken aiming at integration

For integration to be realized, however, there are two channels· either through market forces or through appropriate policies Simplified,

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[5] This definition is similar to that of John Pinder See John Pinder Positive Integration and Negative Integration, Some Problems of Economic Union in the EEC 1979 p 53

[6] Ibid , p 18

[7] According to Ali M El-Agraa (1983) negative integration refers to the removal of impediments on trade between the participating nations or to the elimination of any restrictions on the process of trade liberalization, whereas positive integration relates to the modification of existing instruments and institutions, and more importantly, to the creation of new ones so as to enable the market of the integrated area to function effectively and properly, also to promote other broader policy aims of the union That means that for the desired effect to occur "negative integration" is not enough and "positive integration" must be instituted through appropriate policy means

[8] Jan Tinbergen first raised these two concepts in his book International Economic Integration Elsevier Publishing Company 1965 Tinbergen defines negative integration as "the elimination of certain instruments of international economic policy" and positive integration as "the creation of new institutions and their instruments or the modification of existing instruments "

integration through market forces is "integration from below": integration by an invisible hand. Integration through policy measures, on the other hand, is "integration from above", meaning that the integration is more policy-oriented than autonomous:integration by a visible hand.

Since there is both negative and positive integration, there is also negative integration policy and positive integration policy.[9]

Let it be noted that integration by market forces and by policy measures are interdependent. They are almost always two dimensions of the same process. Integration policy is based on market integration whereas market integration is dependent on the implementation of integration policy. It appears that where there is no tendency to have market integration, there will be little opportunity for integration policy to be successful.

1.2 Economic Integration: Forms and Purpose

Forms

Several forms of integration can be distinguished according to the kind of discrimination abolished and the degree of cooperation among the integration partners.[10] In fact, economic integration need not embrace all sectors of the economies concerned. Integration which is limited to one commodity, one industry or one sector may be quite a promising form of integration. Therefore, among the forms of integration, "single commodity integration", "sector integration" and "common market" are relevant to integration within a country. J.Tinbergen in 1965 put forward the idea of "a partial customs union cum investment plan", which implies an agreement between a number of countries to allocate among themselves a certain number of projects often characterized by economies of scale. The partners to these projects will have free access to the markets of the integration projects. This idea is particularly interesting to integration

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[9]. By negative integration policy we mean measures taken to remove barriers, which, directly or indirectly, impede the free movement of factors. Positive integration policy ranges from consultation to unification Starting from consultation, integration goes all the way to reaching a stage of unity

[10]. For details of these forms of economic integration, see El-Agraa's book Economics of European Community

within a country.[11] In China, for example, it is difficult to let inefficient plants close down all at once. But investment in new plants can take into consideration some cooperative projects which are characterized by economies of scale and other economic principles. This means that when investment for new plants is being discussed, the size and location should be carefully planned so that they may, for example, share some service capacity.

Purpose

Economic integration, like other economic issues, is related to the scarcity of resources. Given a limited available amount of scarce resources, economic integration aims at achieving an acceleration in economic growth for the participants of the integration scheme, or to maintaining the same rate of growth as without integration but at lower cost in terms of the use of scarce resources. The ultimate goal of economic integration is to maximize prosperity for the members concerned via the rational allocation of resources. Hence economic integration is a means and not an objective in itself. To maximize or at least to improve prosperity is the objective.

However, what are the possible gains which motivate integration? Or put it in another way, why and when can integration be a device for economic development? To answer this question it seems that we first need to define the concept of economic development. As Elias T. Ghantus said:

> "From a functional point of view, the development process is considered to involve both growth and change. It aims simultaneously at expanding economic activity and changing its sectorial composition through the allocation of factors of production" (p.27).

The significance of integration therefore lies in the fundamental structural changes that will bring economic benefits in the long-run. Generally speaking, regional economic integration offers an opportunity for overcoming the limitations imposed on the development process by the fragmentation of the market. There are possible political gains as well as economic gains, because most of the schemes of economic integration were

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[11]. J. Tinbergen International Economic Integration Elsevier Publishing Co. 1954. In his interview with the author, J. Tinbergen emphasized that the idea is valid provided that there are benefits for all parties involved.

either proposed or realized at least in part for political purposes. There are sometimes even political gains at the cost of economic losses. Sometimes political motives even outweigh economic gains as reasons for economic integration. For instance, economic co-operation between France and West Germany after World War II was at that time primarily meant to gain political rather than merely economic results. In this study, however, the analysis will be made mainly in economic terms.

The sources of potential economic gains can be attributed to the three pillars of economic integration: economies of scale, competition and the division of labour. There will be an increased output after integration first because of the economies of scale made possible by the increased size of the market and second because of more economic efficiency brought about by enhanced competition within the integrated area. Division of labour in accordance with the law of comparative advantage will also increase production. Furthermore, integration also stimulates the diffusion of the existing technological knowledge.

In fact, "economic integration has been a central theme in the explanation of economic development since at least the time of Adam Smith whose interpretation of the growth process rested upon a perception of increasing interdependence (the progressive division of labour) and its causal role in the wealth of nations. The study of various forms of cooperation and their importance to the efficient allocation of scarce resources constituted a substantial portion of classical economics" (Thomas P.Lyons, 1987, p.10).

We will now elaborate on the significance of the integration process in terms of scale economies, division of labour and competition.

1.3 Economic Integration and Economies of Scale

Economies of scale - the reduction of the average cost by expanding the production either in the short run or in the long run - is an important motive for economic integration. The cost-saving is due to "economy of skill, economy of machinery and economy of materials" (Marshall, 1972).

Economic integration within a country or amongst countries brings economic benefits when production on a regional scale leads to cost-savings compared to the production before integration. Cost-savings may be achieved through larger-scale operation, fuller utilization of existing capacity, joint management, the co-ordinated use of jointly-owned resources and "learning by doing".

Many economic activities exhibit economies of scale. These economic activities have, in general, the following characteristics:

1. Indivisibility

Large scale production will be necessary for the optimum use of some indivisible equipment, bulk transactions such as large-scale handling, shipping etc., as well as the use of the regional infrastructure. Some operating cost is also indivisible such as expenditure for management and for the development of new products.

2. Non-linearity

Nonlinearity here refers to the phenomenon that cost increases are less than proportional to the growth of volume. For the same equipment such as tanks, pipes, containers etc., cost is a function of surface areas, whereas capacity is related to volume.[12] Processing industries such as fertilizer factories and cement factories are outstanding examples. Some economic activities are also non-proportional, such as design, production planning, research, processing and collecting of information.

3. Continuity

Large-scale production becomes more profitable when continuity is possible so that set-up costs can be distributed over a longer period of time and over a larger volume of output.

Some scholars have done empirical tests on the principle of economies of scale. They tried to find the minimum efficient plant size (MEPS) according to the "economies of scale" principle, namely, the minimum production volume for a plant to be efficient in terms of production scale. Table 1.1 gives some of the empirical results. The names of the academics who did the empirical test are also mentioned as "author reference".

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[12]. Some engineers have derived the 0.6 rule from this principle - the increase in the cost of equipment of this sort is given by the increase in capacity raised to the power of 0.6. See Balassa International Economic Integration George Allen & Unwin Ltd. London 1973.

Moreover, the scale factor is significant if we examine it in a more dynamic way.

With the growth of the market through integration, efficiency may increase because of the growing inter-relation of industries in production and consumption. If a larger market enables not only industry A but also industry B to survive, then the service industry to A (e.g. repair workshop etc.) may also be helpful to B. If industries A, B and C have input-output relation with each other, i.e. if B's output is A's input while C's output is B's input (C > B > A), the expansion of industry B will naturally raise the demand for products of C, and the cost-saving in industry B will stimulate the production in industry A.

Table 1.1 Economies of Scale: Some Empirical Results

Product	Estimate of MEPS (minimum production per year)	Author Reference
Cigarettes	36 billion cigarettes	S. Richardson
Soap	10,000 tons	C. Pratten
Steel	2-3 million tons	C. Pratten &R.M.Dean
	1 million tons	C.Pratten
	1 million tons	G.M. Scherer
Bicycles	160,000 units	C.Pratten
Tractors	90,000 units	J.B. Heath. N. Owen et.al
Cement	200,000 tons	National Board for prices & income
Automobile	1 million units	F.M. Scherer
Celtic textile	3.85 mill on sq.yds	C.Pratten
Detergent powder	70,000 tons	C.Pratten

Source: Based on A Review of Monopolies and Merger Policy London. Her Majesty's Stationery Office 1975.

The learning effect is yet another dynamic aspect. Longer production runs (if production process becomes longer after the combination of separate lines etc.), as was mentioned above, larger size of the plant, larger quantities of product will make it easier for managers and operators to learn from experience how to operate particular technologies and facilities more effectively. Due to the fact that labour is the core of labour-intensive industries, the learning effect is more important there, whereas the size factor is significant in capital-intensive industries because capital may not

increase proportionately in larger scale production.

Although entrepreneurs should be aware of the existence of economies of scale, it does not, however, follow that larger production units are necessarily more efficient or that larger production, though preferable at the outset, will continue to be beneficial over a period of time. Economies of scale depend upon the size of the integrated area (therefore the transportation costs), the difference in taste, the managerial skill and other factors which may change in the course of time. It also varies from industry to industry.

1.4 Economic Integration and Competition

The ideas of Adam Smith and the classical school of economics are well-known: the invisible hand will take care of the thing that the visible hand fails to manage.

Competition is desirable because it contributes to the elimination of inefficient producers and provides producers with incentives for technological changes. It will also speed up the readjustment process.

Generally speaking, a wider market sustains a greater number of efficient production units. B.Balassa argues that "if a small country were able to support firms of optimum size in various branches of manufacturing, it would rarely be possible to have a number of efficient firms competing in a small market"(B.Balassa,1973,p.74).

Furthermore, since one objective of integration is to remove barriers to trade, it will naturally increase the number of potential competitors and loosen monopolistic and oligopolistic market structures. In an integrated area the market power of monopolies will always decline. In addition, free movement of factors of production in an integrated area will not only enlarge the output market but also the input market and will intensify competition not only in the product market but also in the input market. On the other hand, economic integration will extend the openness of the market which is likely to "enable competition less personal and more effective by lessening the fear of retaliation and the individual producer's misgivings about encroaching upon other producer's markets" (B.Balassa 1973,p.84).

The following comment of T. Scitovsky on European economic integration sums up the significance of competition in the EC:

> "The influence of economic integration is likely to be exerted through many channels, and one of these is its effect on competition. The freeing of intra-European trade would increase

> the number and geographical coverage of the market outlets open to the average producer and this increases the number of firms he regards as his competitors. This would hardly render competition free in the classical sense but may well render it less personal and therefore less considerate of the interests and profits of the weakest members of the group. National monopolies would probably be less secure in their monopoly position; oligopolies are likely to be weakened; cartels, if extended from national into all-European organizations, are expected to come under the large and less under the small firms influence - a change likely to increase competition within the cartel organization itself. All this should enhance the individual producer's ability, willingness and inducement to innovate and to expand, by encroaching if necessary on his competitor's markets"(T.Scitovsky, 1982, p.133).

In a market economy, competition is pervasive. It is the preferred organization principle if the producers have independent decision-making power and strive to maximize their own benefits. This is, however, only half of the story. Simply removing frontier barriers is insufficient if goods and services are to be freely traded and a single common market is to be maintained. Suppression of competition is likely when there are cartel agreements, mergers or take-overs. If market structures become more concentrated, trio and duo-polies, or even monopolies may occur in product markets which was the situation in the EEC during the 1970s. That is why a policy which guarantees competition is indispensable.

1.5 Economic Integration and the Division of Labour

The existence of comparative advantages is the cornerstone of economic integration. When comparative advantages exist, benefits are expected to be derived from a division of labour among the participants of the integration scheme.

The key point is, where do comparative advantages come from?

Comparative advantages rest first upon relative costs, which result from production technologies, preferences and factor endowment. The Heckscher-Ohlin model of international trade theory explains the determinants of trade patterns. The model suggests that international unit cost dif-

ferences arise from national differences in factor endowments. Those countries relatively well-endowed with one production factor will be able to produce relatively cheaper commodities by making intensive use of that abundant factor. If a production factor is relatively abundant in a particular economy, it will tend to be cheaper in terms of other factors compared with the situation in economies which are less well-endowed with that factor. A country with abundant land, for instance, is able to produce food cheaply and thus export food in exchange for manufactured goods.

The Heckscher-Ohlin model, modified by Samuelson, is usually a model formulated in the international setting. When applied to an individual country, the model has to be somewhat modified. However, "due to differences among units in production technologies, preferences, or factor endowments (natural and acquired), relative costs almost certainly differ at the allocations chosen by the various units in autarky. Such cost differences imply that specialization and inter-unit trade will permit greater total output of at least one commodity, even though each unit, considered individually, produces efficiently in autarky; each unit can be made better off if the units cooperate, in accordance with their comparative advantages"(Thomas P. Lyons 1987, p.41). The basic fact that factor-endowment difference exists in an individual country like China will make the application of the model possible.[13] One Chinese economist mentioned that:

> "(In China) every region has its comparative advantages as well as its comparative disadvantages. A correct economic policy should be to produce those goods for which the region has comparative advantages and not to produce, or produce less of, those goods for which the region has comparative disadvantages."[14]

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[13]. This can also be explained in terms of micro-economics. Suppose there are two economic units A and B. Assume the production possibilities frontier of each unit is concave to the origin and each unit produces two goods at its PPF (Production Possibility Frontier). In the case that the relative costs differ due to the differences in endowments or production technologies, the slopes of the two PPF will differ too. If each economic unit produces more of the goods in which it enjoys the lower relative cost, then the total output of both goods increases. Both A and B will be made better off through trade on condition that transportation costs do not completely offset the gains from this re-allocation.

[14]. See He Jianzhang The Current Economic Policies of China in Economic Reform in the PRC Westview Press Inc., p.74.

Theoretically, a division of labour, as well as competition, will improve prosperity by reducing the cost. Yet the argument of prosperity improvement for integration is not merely confined to cost-based analysis. The increased size of the market will also allow greater specialization in respect of product varieties: each producer may produce one differentiated product, something previously impossible due to the limited size of the market. When a greater variety of products are available, this certainly extends consumer's choice and thus improve the benefits of everyone, even if each producer's output remains at the same level.

1.6 Economic Integration: Costs and Benefits

The significance of economic integration is that it can be a momentum to economic development. Because of the new structural changes for the allocation of resources within the integrated region and/or the new production pattern it brings, integration tends to shake off stagnation. The determination of the most desirable future structural changes for economic development is, however, subject to various constraints. How the integration scheme may affect these constraints is therefore of vital importance.[15]

Costs and benefits are involved for every member of the integration scheme. What are these costs and benefits?

The authorities of a member state for integration may have in mind some main objectives, and integration fits into the optimum strategy for realizing these objectives and there are desirable structural changes related to them.

Now if some sets of obstacles exist for desirable structural changes, it may be convenient to think of the benefits of integration in terms of the removal or reduction of these constraints. Put another way, the reason for the member states to join or to remain in the integration scheme is in order to get rid of, or at least, to reduce the obstacles for its economic development. One country in question, for example, does not have coal. Having become a member of the integration scheme, it may therefore get some coal from one of the neighbouring countries at a reasonable price for its economic development.

Obstacles or constraints here may refer to many things, including not only the non-availability of raw materials but also the non-availability of

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[15]. For the trade-offs involved in economic integration, the Polish economists Marian Ostrowski and Zdislaw Sadowski have developed a cost- benefit analysis, which is useful when dealing systematically with the integration issue. The basic idea has been summed up in the text.

skilled labour, technology etc. By removing some material obstacles, economic growth will certainly be accelerated. Another constraint will be the limited size of the market, which makes it impossible to realize economies of scale.

On the other hand, the costs of integration may be looked at as such sets of constraints which tend to increase by integration. One particular cost is related to the fact that the agreement on integration must necessarily make the process of decision-making more difficult. Members of an integration scheme have to give up some decision-making power. Moreover, integration may directly add to the administration costs. It is therefore fair to say that economic integration can be beneficial only at some cost.

1.7 Economic Integration, Factor Mobility and Balanced Development

In general, the foregoing analysis of economic integration assumes that by shifting resources from the places where productivity is lower to places where productivity is higher, better economic performance will be attained. But a greater degree of integration cannot be said to be equal to a "superior economic structure". First, an inappropriate pattern of specialization and exchange may lead to economic losses rather than gains, and secondly, some undesirable consequences may offset or outweigh any realized benefits. In addition, there are also other problems that may arise in the process of integration.

There is first of all the problem of factor immobility, and then, if free movement of factors exists, there is the problem of polarization. These problems in respect to balanced development exist both in inter-country integration and in integration within a country.

There are general reasons why factors are not very mobile, even within a nation. Land is immobile; labour is more immobile than capital. Let us look at the mobility of labour more closely.

Basically, the mobility of labour may fall into two categories: geographical mobility and occupational mobility. It is obvious that a job-job transition is always harder than a place-place transition. This means that it is easier for a person to change his or her place without changing his or her job. Moreover there are also tangible (monetary) costs and intangible costs involved in labour migration. Intangible costs include, among other things, difference between present and future earnings, difference in climate, language and customs. Thus the assumption of free movement of factors is not always valid.

Another relevant issue for integration is the problem of polarization. In fact this issue is related to the relationship between factor mobility and

balanced development in the integrated area. Since economic integration intends to at least abolish the barriers to movement of commodities and production factors, there will be freer movement of commodities and production factors than before. But in most cases this will lead to unbalanced development in the integrated area.

Experiences in the past show that some schemes of economic integration may fail not because no benefits have ever been derived from economic integration, but because there is a lack of equitable distribution of the benefits. In the presence of disparate views on the distribution of potential gains from economic integration, and weak arrangement for redistribution, integration may well founder midway. Therefore the equity argument is as important as the efficiency argument. Not everyone can have everything in the scheme of integration. Anyone would participate in an integration scheme if there was a prospect for economic gain, and he would retain his participation as long as he considered himself better off in the scheme than outside it. On the other hand, any integration scheme would not last long unless a reasonably equitable distribution of costs and benefits was maintained among the participants.

Actually, polarization is one of the probable effects of free movement of factors. The production factors of the integration participants will be likely to be attracted to one or a few centres. When the barriers are removed, a development process will start which will enable the rich part to become richer while the poor becomes poorer. The so-called growth pole theory examines this phenomenon. Polarization will particularly occur when the levels of development differ among the members. It is hardly surprising that industrial activities tend to cluster in specific central areas where the efficiency of factors of production is higher due to external economies, easier communication, better infrastructure and availability of skilled labour or expertise. As a consequence, some of the integration partners may lose factors of production thus becoming less well off than before integration. Naturally they will lose interest in the integration scheme. Once free movement of production factors becomes possible, such a phenomenon is bound to appear. Unless suitable adjustments in practice are made or financial measures are taken, the willingness for integration is likely to evaporate very quickly and the backwash effects will occur: success breeds success and failure breeds failure, or, the rich become richer and the poor become poorer. The integration scheme will thus be at stake. Therefore the achievements of the potential gains from economic integration will be limited to the willingness and/or the ability to cooperate and to distribute the gains from integration, so that all participants may benefit in the long run if not in the short run.

1.8 Integration Motivation

The concept of "integration motivation" is used to describe the willingness to integrate, or to what extent the members of the integration scheme are devoted to the integration scheme. We may well call it "the mental infrastructure" for integration because although it is almost invisible it is the basis for integration.

Integration motivation is a multi-determined concept which is influenced by many factors. To understand this concept the following relationships are important:

1. Integration motivation and the convergence of objectives

Goal-means analysis shows that the more convergent the objectives are, the more convergent the means. If the integration partners (member regions) have nothing in common in terms of their objectives, they will not be looking for integration.

2. Integration motivation and historical relations

Basically, the more historical connnections the integration partners have, the easier it is for them to integrate. The case of the Benelux shows this.

3. Integration motivation and physical unification

In an integrated region, integration loyalty tends to increase when the economic activities in the region are unified, i.e. the infrastructure within the integrated region is well-established. If, for example, the integrated area has built the common railway, communication system etc., the progress of integration will be irreversible. A well-organized system of commercial laws etc., will also make intra-region business easier and thus stimulate the process of integration.

4. Integration motivation and outside pressure

The outside pressure here refers either to outside threat or challenge, both political and economic. If there is a threat or a challenge as such, the integration incentive will be stronger. We will see later that the European integration occurred because the European countries became aware of their weakness and the economic threat from outside.

CHAPTER 2
THE EUROPEAN ECONOMIC INTEGRATION: A SYSTEMIC MODEL

As was mentioned in the Introduction, there are at least two major models of economic integration: one is the EC model and the other is the COMECON model. The present chapter describes the EC integration model. It will glance over the historical development of the EC to identify both the mechanisms underlying the integration process and the principles that made the process smooth and successful.

2.1 The Growth of the European Community: A Historical Overview

In March 1943 Winston Churchill, in a broadcast to the world, held out the hope that "under a world institution embodying or representing the United Nations, and some day all nations, there should come into being a Council of Europe...". Yet the foundation stone in the building of the European Community was not laid until 9th May 1950 when Mr. Robert Schuman, the French Foreign Minister, delivered a speech in which he put forward a plan jointly worked out by himself and Jean Monnet to establish the European Coal and Steel Community. This was the formal launching of the Community idea.[16] It was meant as a first step on the way to a "European Federation of Nations". According to this plan, German and French coal and steel production was to be subordinated to a common "High Authority".

The initial success of the ECSC encouraged politicians to plan a much more ambitious and comprehensive scheme of economic co-operation - the European Economic Community (EEC). Europe's realization of her own weakness, the conviction that renewed military conflict must be avoided, the earnest desire for a better, freer and juster Europe - all these have contributed to the establishment of the EEC and to the subsequent attempts towards further integration.

Two fundamentally different views can be the starting points when stimulating a process of international integration: the "confederalist view" and the "federalist view". The essence of confederalism is that the countries concerned agree to cooperate with each other without ceding any of their national sovereignty. The confederalist approach does not aim at

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[16]. The ECSC treaty outlaws tariff protection, quantitative restrictions and discriminatory practices in inner community trade.

creating a new supranational organization but aims at linking sovereign states which retain their own national structures. The federalist approach, however, aims at pooling their sovereignty under a supranational community. Though they still have their individual identities, their future is determined by common authorities.

The structure of the European Community was deeply influenced by the federalist approach. One of the major innovative characteristics, compared with other international bodies such as the U.N.etc., is that its members have to cede a part of their national sovereignty. It was, however, somewhat modified owing to the member states' reluctance to abandon their sovereignty altogether. Compromise had to be found which provided more than mere co-operation along confederal lines. Such an arrangement was to bridge the gap between national autonomy and European federation in a gradual process - spiral progress being a feature of European integration. The European Community thus started as a political arrangement. However, it was in the economic sphere - where progress appeared most likely - that was agreed that member states should cede some sovereignty. The result has been reflected in the Treaties establishing the Communities.

2.2 Integration through Market Forces versus Integration through Policy Measures: Mechanisms for Integration in the EC

Integration through market forces and integration through policy measures are two mechanisms for any integration scheme. How is integration in the EC?

Generally speaking, the focal point of European economic integration is the Common Market, which rests on four fundamental freedoms: the free movement of goods, persons and capital, and the freedom to provide services. It was expected that by stimulating the free movement of production factors, competition would increase, and a further convergence of commodity prices and factor enumeration would take place. Once again, economic interdependence would be reinforced.

Some may argue that Western European integration, as it is now, is basically an integration resulting from market forces, or from the supply and demand of the market. But integration through market forces is, relatively speaking, less visible, less political and more autonomous. Let us look further at the situation in the EC.

Among the major achievements of European economic integration, progress in monetary integration stands out. The development of the

ECU[17] in the European monetary integration may very well serve as an example of integration through market forces. It would therefore be worthwhile to pick out monetary integration in the EC, especially the success story of the ECU.

The ECU was originally the official unit of account of the EC as a monetary personality of the Community: a "common currency" for a "Common Market". In the beginning it was not designed within a framework of market-induced financial innovation and was limited to transactions between central banks according to the 1979 agreement on European Monetary System (EMS). Yet the ECU has experienced its greatest success in the market. Early in 1983, three countries - Belgium, France and Italy - allowed private accounts to be held in ECU's. The ECU developed quickly later and now the ECU is recognized as a foreign currency at any rate by the EEC countries. The use of ECU traveller's cheques is already an established fact.

The success story of the private ECU is something beyond the expectation of the designers of the European Monetary System (EMS). It shows that economic forces which had been in favour of a wider European integration had increased the need for a common currency of the European integrated area. Both as a reserve asset and a "risk spreader", the ECU is very attractive. That is why the use of the ECU is expanding so unabated. It has even given rise to market self-regulating structures such as the newly set-up clearing system. At present the size and the role of the private ECU market is no longer in question. As Peter Coffey says:

> "Once .... travellers' cheques circulate freely within the EEC and, most probably, almost simultaneously more Member States allow their nationals to open banking accounts denominated in ECU's, then the road is open for the development of an important market in ECU's" (p.76).

Moreover, the development of the ECU's market would preferably go hand-in-hand with the development of a real "European Monetary Fund", which is one step further towards a monetary union.

The story of the private ECU shows that integration through market forces occurred because of the existence of a fundamental need for a common currency to facilitate trade.

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[17]. ECU replaced ACU which was created in 1977. As an official unit of account it has been used among the member states of the EC.

Whilst the European economic integration is market-oriented, it is also a fact that an active policy has also been provided. In the sphere of monetary integration, for example, the Werner Report analyzed the monetary situation after the progress of economic integration and the Report put forward the blueprint for the future. It made detailed proposals for the first stage of the European Monetary Union (1971-1973). Therefore monetary integration was first of all "integration from above". Yet the private ECU, as illustrated earlier, has developed "from below" as a result of progress in monetary integration.

2.3 Constitutional and Institutional Aspects of the EC: Structural Arrangements

Successful realization of economic integration implies the existence of a well-developed system of inter-regional institutions and also of a corresponding set of rules and regulations - a constitution or rules for the "game of integration". We will go into these two aspects of the EC where the EC has quite a lot to say about having been an integration organization for more than three decades.

The Constitutional Aspect of the EC

Providing a constitutional basis involves the establishment of rules for integration. Several treaties established the Communities: The Treaty of Paris was signed in 1951 to create the European Coal and Steel Community (ECSC), valid for 50 years.[18] When the experiment of rational allocation of resources proved successful, the Member States signed the two Treaties of Rome (1957) which are of unlimited duration, setting up the European Economic Community (EEC) and the European Atomic Energy Community (Euratom).

The Rome Treaties establishing the EEC and the Euratom, together with the Paris Treaty establishing the ECSC, formed the constitution of the European Community. Subsequently, other texts have been added to, or have amended these basic documents and more important changes are incorporated in treaties which must be rectified by each member in accordance with its own legal procedures. All these Treaties have the same objectives: economic growth and higher standards of living, accompanied by political union of the peoples of Europe.

The Treaty of Rome has spelled out the immediate objectives of the

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[18]. The Treaty founding the ECSC came into force on June 23, 1952. The Common Market for coal, iron ore and scrap metal took effect on February 10, 1957, for steel on May 5, 1953, and for refined steel on August 1,1954.

Community as well as some of the institutional arrangements such as the European Investment Bank etc. The preamble and general clauses of the EEC Treaty also call for the implementation of common policies on agriculture, transport and competition etc., and rules in almost all areas of economic and social life. There is a special article which empowers the Community institution to set up any policies that may be necessary to attain the general objectives set out in the Treaty. Under this article several policies developed to deal with industrial problems including a regional policy, a social policy, a policy on the environment, a policy on consumer protection and proposals for a passport union.

In February 1986, a "Single Act" signed and submitted to national parliaments for rectification, amended and complemented the Treaties mentioned above. The act further confirmed certain objectives of the Community: technological development, progress towards economic and monetary unity, the strengthening of economic and social cohesion, improvement of the environment and the working environment, and the completion of the European internal market and the creation by 1992 of a large area without frontiers,

The specific details of the treaties are of course not of interest to the present study. They have been mentioned here only to show that the integration process in the EC could not have progressed without all these rules.

The Institutional Arrangements of the EC

The three European Communities - the ECSC, the EEC and the EAEC - are managed by common institutions. Among those institutions the Council and Commission are regarded as a bicephalous high authority for the EC.

The Commission and Council are important because the success of the Community depends largely on the deliberate coordination of the interests of individual nations and that of the Community as a whole. It is these two institutions that are engaged in the job of co-ordination - the Commission represents the EC whilst each member state working in the Council represents itself. The Commission is composed of at least one citizen from each member state and altogether there are seventeen - two for Germany, Spain, France, Italy and Great Britain, and one for each of the remaining member states. Members of the Commission are appointed for four years by mutual agreement of the Community governments. Since the Commission represents the EC, its members act only in the interests of the Community; they may not receive instructions from any national government. The Commission is responsible to the European Parliament

which is the only body that can dismiss the Commission by a two-thirds majority.

The Commission acts both as an initiator of policy and as the exponent of the Community interest. It operates as a college and decisions are made by majority vote. For the purpose of day-to-day operation, the Commission is divided into twenty Directorates-General which cover all aspects of the EC's activities. Different Commissioners have a responsibility for particular fields. The interesting point here is that each Commissioner is assisted by a personal cabinet. The functions of the Commission are based on statute and custom. Statutes are for the most part the treaties establishing the Communities, whereas custom relates to working practices within the EC.

The Council consists of representatives of the member governments. It takes the major policy decisions of the Community. As the EC is such a huge organization which has to cope with the different and conflicting national interests, it would be interesting to examine its function in decision-making.

The decisions of the Community are taken by unanimous, simple or qualified majority voting. When the last method is used, the system is weighted both in favour of the larger members and by the necessity of carrying at least one of the smaller ones along with the decision. Such kind of method, it was originally hoped, would ensure that decisions were supported by a wide spectrum of opinion, neither allowing the larger members to ignore the smaller, nor the smaller to hold up the whole Community. As a general rule the Council has used unanimous voting but at the same time a member may abstain from voting on a matter which is not of vital importance to it but which it would rather not support, without preventing the others from agreeing with the policy. The Council is served by its own secretariat and is supported by the Committee of Permanent Representatives.

2.4 Integration Willingness in Western Europe

Another important aspect for understanding the economic integration in Western Europe is the motivation or willingness to integrate.

In fact, there have been opinion surveys in different Western European countries about European economic integration, asking the public how it felt about the unification of Western Europe. Some were ad hoc surveys, others were part of a deliberate effort to trace the evolution of public opinion on the subject before the Single Act was passed. The table below sketches out the way answers evolved to the question: Are you in general for or against making efforts towards uniting Western Europe?

Answers are to be presented in Table 2.1. In fact these answers are divided into five categories:

1. very much for,
2. for to some degree,
3. against to some degree,
4. very much against, and
5. no response.

Table 2.1 The Survey Results for European Integration (1962-1985)

Year	1	2	3	4	5
1962 (EUR 6)	40%	32%	4%	1%	23%
1970 (EUR 6)	34%	40%	4%	2%	20%
1973 (EUR 10)	30%	33%	6%	5%	26%
1975 (EUR 10)	33%	36%	5%	4%	22%
1978 (EUR 10)	30%	45%	8%	3%	14%
1979 (EUR 10)	30%	45%	7%	4%	14%
1980 (EUR 10)	28%	45%	9%	4%	14%
1981 (EUR 10)	29%	43%	9%	5%	14%
1982 (EUR 10)	26%	44%	10%	5%	15%
1983 (EUR 10)	30%	44%	8%	3%	15%
1984 (EUR 10)	2%	46%	9%	4%	13%
1985 (EUR 10)	32%	44%	8%	4%	12%

Source: European Documentation Periodical 3 /1986 European Unification: The Origins and Growth of the European Community.

The figures above indicate clearly that the willingness to integrate remains positive (item 1 + item 2 > item 3 + item 4) all the time and it has been stable though there were some changes in percentage. It is difficult to identify the exact causes behind the changes as willingness to integrate is a factor influenced by many elements. On the other hand, willingness to integrate is a factor influencing the process of integration.

The following matrix illustrates some of the major considerations for Western European countries to integrate, including both political and economic considerations. The matrix, though non-exhaustive, shows the complexity of Western European integration motivation.

The "external catalyst" here refers to the U.S.A., who hoped, through the Marshall plan, to revitalize the European economy. The United States would like to see a united and prosperous Europe. The "perception of a threat" refers, of course, to the USSR at that time. As for the economic incentives, the search for allocative efficiency is primary. At that time there were also high expectations in member countries that economic integration would enhance economic growth.

Table 2.2 Various Motives for Integration

political	economic
1. viability of nation states	1. allocative efficiency
2. European peace	2. internal growth
3. affinity	3. economic interdependence
4. wish for a "superpower"	4. wish for economic power
5. threat perception	5. fear for recession
6. external catalyst	6. technological gap
7. external recognition	

Source: Spinelli (1957), Van der Meersche (1971), and Brugmans (1972).

We will have a closer look at the original six member states: the agriculture in France was in a strong competitive position and its industry was weak compared with that of Germany. France got the common agriculture policy whereas, Germany, keen on freer trade, was satisfied in terms of its industrial interests. Italy preferred export-led growth in industrial products due to a shortage of home demand. Belgium relied heavily on foreign trade and hence on secure export markets, so did the Netherlands. The idea of a common market was thus very attractive. The complexity of motives for integration listed above shows where the driving forces were behind European integration.

CHAPTER 3
THE BENEFITS OF THE EC COMMON MARKET

We have examined the theory that economic integration may bring benefits. It is more important, however, to test it in reality: are there any benefits for a Common Market like the EC? If there are, how many?

This chapter intends to answer these questions in the theoretical context by looking at economies of scale, the division of labour and competition. Some empirical results of EC integration studies will be carefully examined.

As for the benefits of the EC integration, Nicholas Owen has conducted systematic research to sum up the development of the EC Common Market and has illustrated that competition and economies of scale have brought benefits to EC countries. The results of his empirical efforts will be discussed later.

Apart from Nicholas Owen's study, many other studies, accompanied by the "Single Act" of 1992's internal European market, have been done recently on the empirical aspects of EC integration, which provided important material for this study.

The benefits of economic integration involve several dimensions

- resource saving because of lower costs related to market penetration;
- benefits to consumers by allowing them a wider choice of differentiated products. This does not entail any reallocation of resources among the integration partners;
- benefits derived from competition.

3.1 Economic Integration and Economies of Scale in the EC

A basic objective of the EC integration from the outset was to establish a common market among the Six to encourage industrial structures capable of taking advantage of economies of scale. The designers of the Community must have thought of the fact that the large and integrated markets had fostered the development of large-scale production techniques in the United States, and were, partly at least, responsible for the American productivity level being one of the highest in the world. "The founding fathers of the Community envisaged that the creation of the Community would ensure for its members levels of productivity comparable to American level through the creation of integrated markets, which are comparable to that of North America in economic terms" (Layton,1971).

Layton, in his "Benefits of Scale for Industry", stated the idea more clearly:

> "For roughly a hundred years, or since the end of the American civil war, the long term trend of growth in the U.S. economy was faster than that of Western Europe as a whole. One major reason was economies of scale."[19]

We may well start with examining potential gains in terms of economies of scale after 1992.

In fact the prospects of the 1992 internal market painted a bright picture for the EC countries: increased trade triggered by market integration enables firms to make savings linked to large-scale production. According to Paolo Cecchini, potential gains after 1992, however, vary significantly per industry (Paolo Cecchini et.al. 1989, pp.77-78).

Table 3.1 Price Falls for Financial Services

Country	potential price falls (%)
1. Spain	34%
2. Italy	28%
3. France	24%
4. Belgium	23%
5. Germany	25%
6. Luxembourg	17%
7 UK	13%
8. Netherlands	9%

Source: Table 6.2 The European Challenge of 1992 - the Benefits of a Single Market.

The expected reductions in production costs resulting from economies of scale are of the order of 1% for sectors like petroleum products,

[19]. Layton emphasized the principle of economies of scale in his book. This is actually the principal reason for European economic integration. As we shall see later, many other academics have done a lot of empirical studies into this aspect.

but range from 3% to 6% for heavy electrical equipment and means of transport other than cars.

In addition to economies of scale in the sphere of production, increased trade may also lead to economies of scale in the sphere of business organization, marketing, finance, and R&D. Take the financial service sectors for example (see Table 3.1).

The estimated gains in consumer surplus resulting from the integration of European credit and insurance markets is given below:

Table 3.2 Estimated Gains in Consumer Surplus of Credit and Insurance Markets for Each Country

Country	ECUs billion
Belgium	0.7
Germany	4.6
Spain	3.2
France	3.7
Italy	4.0
Luxembourg	0.1
Netherlands	0.3
United Kingdom	5.1
Total	21.7

Source: see Table 3.1.

The table shows that the largest overall benefits are registered by the UK and Germany where price falls, though relatively modest, are leveraged upwards by the increased size of their financial services markets.

While potential gains from the EC single market are interesting to us, it is important to see the gains which already exist. Nicholas Owen has investigated some sectors in the EC which covers the washing machine industry, the car industry and the truck industry. Nicholas Owen's book Economies of Scale, Competitiveness, and Trade Patterns within the European Community reflects on the EC twenty-five years' development and the important impact on the industries directly affected.

As for the washing-machine industry, Owen reported that in the

1970s Italy exported some of its total washing-machine output to Britain, Germany and France[20]. As trade and volume increased, the number of producers in the Italian industry diminished rapidly from 50 in 1960 to 13 in 1974. Unit costs in the Italian washing-machine industry declined by 15% in real terms with every doubling of cumulative production volume. Italy's washing machine industry's combined exports to France, Germany and Britain, which accounted for 30% of the industry's output, reduced unit costs by 8 percent.

There have been structural changes in the car industry too. Concentration first increased in West Germany from 1955 to 1970. There was a similar trend in the British car industry between 1965 and 1970. From 1965 onwards the French car industry improved its export performance. N.Owen made an assessment of the effects of French exports to Britain in 1976: the resource savings were calculated at 15% to French producers.

As for the trucks industry, Owen argued that the structure of the German industry had adjusted itself slightly in favour of the larger producers as a direct result of export. Exports to France (1976) allowed the lowest-cost producer Daimler-Benz to increase output by 7.5 percent. These benefits are basically those related to economies of scale, i.e. cost-savings made possible by a wider market.

3.2 Economic Integration and Competition in the EC

The achievements after freer competition in the EC Common Market are also important. The Commission has declared its policy in favour of competition (E.C.1972, p.11): "Competition is the best stimulant of economic activity since it guarantees the widest possible freedom of action to all. An active competition policy makes it easier for supply and demand structures continually to adjust to technological development... encourages the best possible use of productive resources for the greatest possible benefit of the economy as a whole and for the benefit, in particular, of the consumer."[21]

For any product, competitive pressures tend to trigger a convergence of prices. In a competitive environment, the adjustment of prices to supply and demand pressures is generally greater and quicker, a point mentioned

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[20]. According to Owen's book, Italy's exports to Britain, Germany and France in 1976, for example, enabled Italian industry to achieve a production volume over 40% higher than it would otherwise have been.

[21]. Article 3 (f) of the Treaty of Rome has been referred to as "the institution of a system ensuring that competition in the Common Market is not distorted."

already in Chapter 2.

Due to the existence of artificial barriers, there were price differences which stopped the natural process of arbitration between member state markets. Other studies carried out in Britain and France, which were mentioned in Owen's book, show that the losses in efficiency were linked to monopoly power in certain industries.

In Nicholas Owen's view there were also benefits in terms of induced efficiency gains among the surviving producers in the importing country since "imports from low-cost producers inject a formidable dose of competition to which all domestic producers need to respond in order to ensure that they will not be the next to succumb" (Nicolas Owen p.147).

3.3 Economic Integration and the Division of Labour in the EC

The division of labour was the starting principle for the EC economic integration. The real inspiration for the European Coal and Steel Community was the desire to bring about a rapprochement between the two economies: France and Germany. Apart from the political driving force, the European Coal and Steel Community, one of the entities of the EC, was founded for the purpose of establishing conditions "which will in themselves assure the most rational distribution of production at the highest possible level of productivity." More precisely this means that the ECSC was established on the basis of comparative advantage to divert the coal production from low labour productivity mines in Belgium and France. The high productivity in German mines would raise the average productivity of coal miners in the Community as a whole and thus yield a gain. The comparative advantage of productivity in West Germany resulted mainly from the relative abundance of skilled labour in Germany, generated by its excellent technical education system.

There are also other examples of specialization in the EC community. "Italian producers have substantially improved their relative position at almost all levels of the textile and clothing sector. In textiles, capacity was reduced primarily in France and the United Kingdom, whereas the largest capacity reduction in the clothing industry took place in Germany. In terms of intra-EC export specialization, the leading position is held by Italy in the clothing sector and by Germany in textiles."[22]

According to the report of the Commission of the European Community, the Federal Republic of Germany is "achieving better and better specialization", the Netherlands "have a considerable involvement in

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[22]. All these examples were mentioned in Economics of 1992 p.225.

growth products" and in Belgium and Luxembourg "a remarkable development is under way in the agro-chemical family of industries."[23]

The programme for the completion of the internal market by 1992 is now under way. As we have already seen, what is on offer will be much more significant in terms of competition, economies of scale and division of labour:

- there will be improved efficiency within companies because the removal of barriers and freer competition will enable prices to move downward nearer to production costs under the competitive pressure;

- there will be a reduction in costs due to economies of scale in production and business organization;

- as the real comparative advantages play the determining role in market success, there will be new patterns of competition between entire industries and reallocation of resources.

The benefits of a Common European Market have not only become a well-established fact but also have promising prospects.

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[23]. See Industrial Specialization in Twelve European Countries before and after 1973 Official Publications of the European Communities. Luxembourg 1980 EUR 6920 P.V.

CHAPTER 4
SOME LESSONS OF EUROPEAN ECONOMIC INTEGRATION

So far we have examined EC economic integration as a systemic model: both the institutional and the constitutional aspects of the EC, gains from improved competition, the division of labour and economies of scale. The present chapter has the modest aim as to sum up some functional principles which turned out to be effective in the process of European integration.

4.1 Spiral Progress

Spiral progress here implies that the process of integration goes ahead step by step. The history of European economic integration shows that Rome was not built in a day. It was and still is by no means an easy job for several economies to coordinate their tough national interests. Small steps are necessary. Sometimes even "two steps forward, one step back" is unavoidable.

If we look into the process of the EC integration, the principle of spiral progress may be found at different levels.

The integration scheme in Western Europe as a whole has experienced a process from sectoral to comprehensive. At the outset of this part, the survey of the growth of the European Community told us that European integration took off with the ECSC which was a sectoral integration. The initial success of the ECSC impressed the member countries so much that in June 1955, a new attempt at integration was made. The foreign ministers of the six ECSC countries met at Messina. A document was prepared, suggesting that further integration might be pursued through general integration and the creation of organizations for transport and the peaceful development of atomic energy. This became the whole of the European Community, a story of spiral progress.

The integration in the trade sphere itself has also experienced spiral progress. When the Community started in 1958, its member states sold 34% of their total exports to the other member states. The ratio had risen to 52% by 1976 and 52.4% by 1983. On the import side, the ratio had risen from 34% to 48% by 1976 and 50.5% by 1983. It was not surprising therefore that EEC member states, disregarding the conflicts and disputes among them, moved one step further to have monetary integration to shelter the intra-Community trade from monetary disturbance.

The superstructure of the three Communities also reflects the spiral

principle in the establishment of rules or in time for the pursuit of the goal. At the outset of the Community, instead of relinquishing all sovereignty overnight member states were asked to merely abandon the dogma of their indivisibility, i.e. to cede some of their national identity to the identity of the Community as a whole. The first step for the creation of the Common Market was to eliminate all the custom duties levied on imports and exports between the member states before the birth of the EEC. For the gradual dismantling of these internal duties the EEC Treaty laid down a fixed time-table of 12 years - quite a long time to allow for adjustment. The Constitution of the EC provided reasonably detailed rules for the initial period of creating the Common Market yet left the subsequent problems as well as formation of some positive policies to be decided later.

In the case of monetary integration, it is even more obvious that it evolved in a spiral way.

The designers of the European Monetary System (EMS) must have learned well from past experience. The three main elements of the EMS have derived from its predecessors: First of all, the EMS on the whole was born on the "snake" exchange rate arrangement. When the original "snake" exchange rate system was broken down, as Italy, Denmark and the U.K were unable to keep parity with Germany, the new exchange rate mechanism came into being. Then the European Currency Unit (ECU) took the place of the European Unit of Account, which was introduced in the early 1960s to facilitate transactions within the EEC. As a means of settlement and exchange, the ECU is more advanced than the EUA. Thirdly, the European Monetary Co-operative Fund, which began operations in April 1973 was fundamentally reformed when each member offered 20% of its foreign exchange reserves and gold. As was proposed, the European Monetary Cooperative Fund will evolve into a European Monetary Fund (EMF) and ultimately into a regional Central Bank, though the real EMF has not yet taken shape for various reasons. The re-establishment of the old system means a step further towards the ultimate goal. This is the way of integration and what we mean by "spiral progress".

4.2 Joint Responsibility - Pooling of Effort

European integration is firmly based on a concept of joint effort which allows for common action to perform common tasks, and which tries to find solutions to common problems. Moreover, integration is, in essence, a pooling system, which implies that claims and compromises are usual. The major compromise in 1966, "the Luxembourg compromise" as it has been called, was an important event in the evolution of the EC. De Gaulle agreed that France should remain in the Community if she could be

compensated in the agricultural sector for what she expected to lose in industrial competition with Germany.[24] As a matter of fact, integration needs a "package deal approach", involving a lot of "give and take". Joint responsibility is therefore a constant principle of integration.

Joint responsibility is necessary, first of all, for common economic prosperity. In a Common Market there are underdeveloped areas where aid is needed for the improvement of infrastructure and for industrial development. Such underdeveloped regions are likely to have structural deficits in their balances of payments when they are experiencing economic growth. In such a case, aid provided jointly to such regions in a common market will make a large contribution to solving problems of balance of payment.

For integration to progress it is advisable to have some way of avoiding that some members will benefit too much from the integration scheme and others too little. For that purpose a regional policy has been established in the case of European integration. The regional policy empowers the Community to finance half of the cost of unemployment pay and of retraining for workers made redundant because of the establishment of the Common Market. At this point both the European Regional Development Fund and the European Social Fund are worth mentioning here.

The Regional Development Fund was established "to reduce the principal regional imbalances within the Community by contributing to the development and structural adjustment of regions with a development lack and to the conversion of declining industrial regions." From 1985, all of the Regional Fund's resources are allocated on the basis of ranges of which the lower and upper limits are fixed for each member state. This Regional Fund also helps to finance Community programmes,[25] and national programmes of Community interest The European Social Fund was established to render the employment of workers easier and to increase their geographical and occupational mobility within the Community. The financial instruments mentioned so far are actually compensation or redistribution measures for structural changes induced by economic integration. Behind them is the idea of sharing the responsibility for common development.

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[24]. The French found themselves in a minority on the Council and adopted the policy of the "empty chair" from June 1965 The compromise has been imposed ever since.

[25] Community programmes are defined as a series of consistent multi-annual measures directly serving Community objectives and the implement- tation of Community policies.

In the EMS, the principle of joint responsibility is also reflected. The exchange rate arrangement within the EMS is different from that of the "snake". When intervention is needed, both sides (the weak currency and the strong currency) are involved. If there are two currencies, one strong (the German mark), the other weak (the French franc), then, under the parity arrangement in the EMS, once they drift beyond the permitted EMS limits in relation to each other, both the French and the German authorities are obliged to buy or sell currencies on the market to correct the situation. The obligation is shared by both countries rather than being the responsibility of one individual country. Such mechanisms safeguard weaker members from having to shoulder the burden of adjustment alone.

The pooling of foreign reserves is another example of the principle of joint responsibility. Not all the countries will suffer a deficit at the same time. Those who do suffer may be helped by those who do not.

Looking to the future, we can see that the internal market in Western Europe will be completed by 1992 according to the "Single Act". The economically underdeveloped regions may well be hurt by competition from the most productive industrial centres in the Community and they will no longer be able to rely on tariff or non-tariff barriers and competitive devaluation to protect themselves. The way in which the Community will react to a volume commensurate with the unbalanced development is of significance to the further development of the EC. It has been emphasized that some schemes of economic integration fail merely because of lack of equitable distribution of the benefits which the integration schemes yield. Integration is therefore a game the rules of which are that some are sometimes losers while others are winners, but no one can be the loser or the winner all the time.

4.3 Flexibility

The principle of flexibility is self-evident. The European Community - first six, later ten and now twelve - consists of countries of different national interest, having different motives for integration and different historical and cultural backgrounds. If not flexible, the engine of the Community can break down at any minute.

The European Monetary System (EMS) - the arrangement for monetary integration in the EEC - has been flexible in many of its technical aspects. The failure of the Bretton Woods System as well as the "snake" system has shown that fixity of exchange rates cannot be the result of wishful thinking nor be brought about by legislation. Disparities of member countries have to be expressed in exchange rates because inflation rates which influence the exchange rate depend on many factors (on the political

power of the government, on government policy preferences, on national trends in productivity etc.). These factors vary from country to country. Moreover, the social and political obstacles and structural economic differences are not easy to overcome. Therefore what cannot be cured must be endured. As the Commission pointed out wisely in terms of exchange rates, "success must not be confused with the absence of changes in central rates." Therefore instead of being rigidly fixed, parity changes were allowed and have occurred several times. The system also grants wider fluctuation margins (6%) around central rates for the member states that did not participate in the snake in 1978 such as Italy. This flexible arrangement has smoothed the transition process of Italy from an outsider to EMS membership. Furthermore, instead of including all EC members at the very beginning, the EMS allowed Great Britain to have something of a partial membership and until recently, the U.K only took part in the credit mechanism and not in the exchange-rate mechanism. The experience of the past monetary system reminded the designers of the danger of laying down unalterable rules. Like the Constitution of the EEC, the wording of the Central Bank Agreement left room for further improvement in one way or another, to allow the system to evolve gradually as experience is gained. In some important aspects, the Agreement just outlined the system "in principle", leaving freer choice on the basis of mutual agreement to handle future new problems.

The idea of a "Europe of Two Speeds" also reflects the principle of flexibility. Since some member countries have closer relations than others, it is advisable to let some of the members move further in the integration scheme. All these flexible arrangements are important for the EC integration to progress and to be successful. The principle of flexibility will remain important when more countries join the EC integration scheme.

PART 2

REGIONAL ECONOMIC INTEGRATION IN CHINA

CHAPTER 5
ECONOMIC INTEGRATION IN CHINA: THE CONCEPTUAL BACKGROUND

We have so far established the analytical framework of economic integration and have also described the process of economic integration in Western Europe. We will now focus on the issue of economic integration in China.

5.1 China: The Hierarchy of the Economic System

To many, at home or abroad, China is an integrated economy. The reasoning behind it is that China is a centrally planned economy with one central government and one currency in circulation, which is true. Economic integration, however, should be carefully distinguished from "centralization". Centralization usually "pertains to the allocation of decision-making authority or of command over information - not to the pattern of economic activity itself. In general, there is no necessary relationship between centralization and integration; a market economy is highly decentralized, but this decentralization does not imply that a market economy is not integrated" (Lyons 1989). We can say it the other way round: a unified planned economy does not necessarily imply that the economy is integrated.[26]

Given the fact that there are barriers to the mobility of goods and that there is a lack of economic cooperation and specialization, the national market of China is not an integrated market even though China is politically an integrated entity. We have already explained this, to some extent, in the Introduction. The administrative frontiers are, at the very least, economic frontiers which fragment the national market. The whole country is divided into provinces, autonomous regions and municipalities. Provinces and autonomous regions are further divided into autonomous prefectures, counties, autonomous counties and cities, and counties are divided into towns and townships. The following figure shows this hierarchy.

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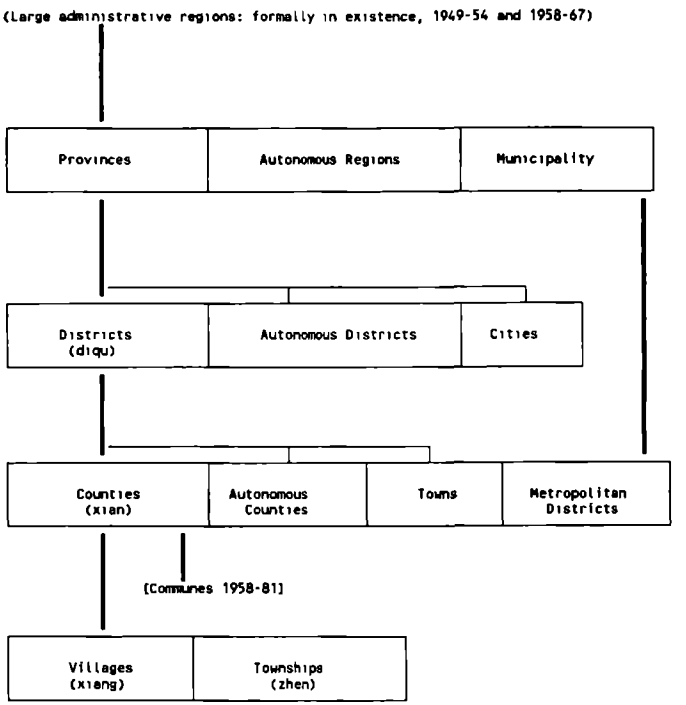
[26].The concept is controversial even among the Chinese scholars: Wu Beilin, professor in Fudan University said that in an individual country, production factors can move freely. Thus it is not appropriate to use the term "integration" in a national context. See Research Papers on the Shanghai Economic Zone, Vol.3.

Table 5.1 The Regional Administrative Hierarchy in the People's Republic of China



For example, when it is difficult for infant consumer-goods industries to compete with the brand-name bicycles, watches, and televisions from major cities like Shanghai, the provincial authorities establish a local blockade or plead for official protection from the central government. In the early 1980s Anhui province even objected to an exhibition of Shanghai products held in Anhui province for the reason that Anhui was producing some of the products in its local factories.

The sectoral planning hierarchy also fragments the market. All sectors within the economy are organized into vertical national bureaucracies, headed by ministries located in Beijing. The ministers, representing the

interests of the ministries, have some decision-making power concerning the economic activities in the respective ministries. The importance of provincial boundaries as barriers depends on the relative importance of the provinces versus the ministries. For a long time China has such an administrative and sectoral planning hierarchy - the "dual leadership" system. A bicycle factory in Shanghai may be under the dual leadership of the municipal government and the light industry to which the factory belongs. Therefore there are both "territorial" and "sectoral" barriers which makes the movement of commodities and production factors difficult. Such a sectoral planning system cuts off the natural "horizontal links" and retards the free movement of products and factors of production. The economic activities are thus regulated according to the principle of administrative and sectoral planning hierarchy, which is not necessarily consistent with the logic of economic activities.

An important and distinctive feature of the Chinese economic system is this parallel hierarchy along sectoral and administrative (geographical) lines: both administrative and geographical criteria have been used to define economic units assigned to the various planning offices. As was mentioned earlier, "ministries" and "provinces" are expressions which are suggestive of a hierarchy in which the sectoral planning and the geographical planning offices are organizationally equivalent. Hence the ties along the sectoral line are described as vertical, whereas those along the geographical (administrative) line horizontal.

In such a parallel hierarchy, below the central level are both ministries and provincial planning authorities. Ministries are responsible for economic units defined primarily along sectoral lines, and provincial planning authorities allocate their agents among subdivisions. Primarily central industrial bureaus are responsible to ministries and provincial industrial bureaus and local planning offices are responsible to a provincial authority. Similarly, these subdivisions again are responsible for lower level units which are either sectorally or geographically defined. In the Chinese economy we have such terms as "kuai" and "tiao", with the former referring to the relationship between provinces and the latter referring to the relationship between ministries. Many enterprises are under the "dual leadership" of the provincial government and of the related ministry. A bicycle factory in Shanghai is, as was mentioned earlier, under the control of both the municipal government and the Ministry of Light Industry.

As Thomas P. Lyons mentioned, this devolution process results in a finer partition of the hierarchy with each agent assigned directly to one planning office (which may be on any tier). The Chinese economy is thus

divided into two parts: central and non-central. The non-central part, like the central part, has decision-making power in terms of investment and production. This leads to the duplication which is so extensive in China. As far as the economic planning system is concerned, "central" and "non-central" are basically defined along this parallel hierarchy: Agents in ministerial units are "central", and all others are "non-central". Among the non-central agents, those not assigned to local planning offices are "provincial", all others are "local". In such a hierarchical framework, provinces have been key spatial as well as political units for implementing (or to interpreting) state economic policy.

Both the administrative (provincial) and the sectoral planning hierarchy have fragmented the market. "The Chinese superimpose this hierarchical model on a contrasting cellular model of separate, virtually self-contained industrial systems, in which centrally planned enterprises supply mainly other centrally planned enterprises, and municipal and other enterprises tend to relate in the same way at their respective levels. The Chinese system is thus an amalgam of the hierarchical and cellular planning models, supplemented, additionally, by markets" (World Bank, 1988, p.68).

This cellular nature has been noticed to be the unique feature of the Chinese economy and it has minimized the necessary horizontal ties. As one foreign article commented correctly:

> "Before China's economic open door policy was adopted, the government was vertically organized, with almost no horizontal liaison. Each administrative hierarchy of government formed its own world, almost completely exclusive of others and the whole was suffering from a sort of bureaucratic atherosclerosis. There was little co-operation among provinces or businesses and problems involving mutual interests were left unresolved for years."[27]

Two characteristics can be distinguished under such a planning system. First of all, centrally controlled resources can be moved readily to centrally-owned plants in other major cities. For example, the centrally controlled Shanxi coal can be moved readily to plants in Beijing, Tianjin etc., which need coal as a raw material. Factor movement of such kind is

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[27]. Special report of China Newsletter Nov.- Dec. 1987.

possible only under the condition that the central government wants it to happen, or at least allows it to happen.

Secondly, each administrative entity - especially the provincial one - is economically so independent that it is natural for them to argue for greater autonomy. This tendency has been reinforced by the locality's self-sufficiency policy pursued in the past. Such a tendency encourages autarky, which leads to economic inefficiency for the country as a whole.

Begun in the late 1970s, the economic reforms, especially the urban reforms, intended to at least weaken the vertical structure of this economic planning system. Some reform measures intended to reduce the rigidity of the planning process, which treated provinces as more or less sealed boxes acting as local components of the plan. In fact, there was little chance before reforms for cooperation between enterprises on different sides of a provincial border. They are now, after the reforms, permitted to find their own suppliers of raw materials and to sell at least part of their own output. This should have increased efficiency by encouraging spatial concentration and more competition. The situation seemed to change. The reform measures in general have brought more freedom for economic activities. But, as we will see later, the provinces have seized on their greater autonomy to build up their own power in various ways.

5.2 China: A Fragmented Market

The cellular nature of the Chinese economy described above naturally leads to various barriers which in turn fragment the national market.

Table 5.2 Comparison of Barriers to Commodity Mobility in the EC and China

Barriers	EC	China
technical standards	yes	no
administrative barriers	yes	yes
frontier formalities	yes	yes
freight transport barriers	yes	yes
value-added tax differences	yes	no
capital markets control	yes	yes
procurement restriction	yes	yes
market-entry restrictions	yes	yes
market-distorting practices	yes	yes

We have already seen that there are various kind of barriers among countries as in the case of EC and tariffs is the most common one. There are also other barriers like different kind of restrictions, frontiers formalities, transportation barriers, tax differences, technical standards etc.

It is interesting to notice that the barriers inside a country are sometimes similar to those among countries. In the survey undertaken for the present study, a rough comparison of trade barriers in the EC and in China was made and the results of the survey were presented in Table 5.2. The table is an effort to point out that the barriers existing in the national market of China are very similar to those in the EC. This comparison is based on the practice in the EC.

In China, the barriers to trade can take different forms. Market-entry restriction is one of them. To restrict the establishment of agencies to handle commercial activities from other provinces is one kind of such barriers. Shanghai is an example. For quite a long time one province had been allowed to set up only one such agency in Shanghai although this regulation was to be changed later.[28] In some municipalities and counties in Jilin, Liaoning, Hubei, Henan provinces, beer, wine, washing-powder (detergent) bicycles and colour TVs produced in other provinces were not allowed to enter local markets. One province in the southwest China reportedly announced a list of nineteen local products in November 1989 to be protected. Purchase of these products from other provinces was restricted. Xinjiang was the most noteworthy of other provinces which followed the example and the list of protected products amounted to as many as forty-eight.

Theoretically there are no tariff barriers within an individual country, but to make the price of products from other provinces uncompetitive is actually a kind of tariff. For some light industry products over which the government has less control such a barrier is more obvious. In some extreme cases, a "tax" can be levied on the products being "exported" to other provinces. Xinjiang, for example, placed a levy of 30 yuan per ton on "exported" raw wool.[29] This also applied to relation between the counties and other administrative units within a province or region.

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[28]. By the end of 1986, seventy-eight agencies had been established by provinces outside of Shanghai and 112 agencies had been established by other large and medium-sized enterprises.

[29]. More interesting examples were given in the article written by Beijing Agricultural College Research Group: "An Exploration of the Reform and the Improvement of China's System of Wool Circulation".

Direct administrative regulations to secure raw materials for local use are also very popular as barriers. Some local governments issue regulations to prohibit or to restrict some materials in local shortage from being exported to neighbouring provinces. The coal produced in Shanxi, the cotton produced in Xinjiang and Henan, the steel produced in Liaoning and the beans produced in Heilongjiang are all examples of raw materials under local protectionism. These provinces are reluctant to "export" these raw materials to other provinces unless the central government gives direct "orders". Some provinces even issued "licenses" for "exports" to avoid "smuggling". In some extreme cases, some local governments even sent police and the military to protect raw materials from export.[30] A director of the Wuzhou Planning Committee of Zhejiang Province tried to stop Jiangsu buyers purchasing raw silk but he was beaten.[31] In 1985 Guangdong province signed a contract with Henan province, assisting the latter in exploring coal in Henan province. Henan province was to export coal in return. In 1988, however, Henan province claimed that the coal exported should be paid for at the negotiable price,[32]which was higher than the price mutually agreed upon. A report from Inner Mongolia in early 1988 quotes the leaders of a "banner"[33] as telling the authorities from an Inner Mongolia city that they were determined not to sell their cashmere wool and would hold onto it for local processing: "Unless you sack us, you can't have it!"[34] The first secretary of Zhejiang province reportedly blocked shipments to Shanghai on the grounds that "Zhejiang is not a colony of Shanghai."[35]

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[30]. About such local protection practices, there were discussions in Hong Kong magazines, e.g. Contemporary in Hong Kong (September 1990), and Outlook (No.4, 1988).

[31]. The North-South Pole magazine published in Hong Kong has an article describing such phenomenon and claimed that this is the rivalry between provincial governments and such rivalry is a burden to the central government or to "Deng".

[32]. Ibid.

[33]. "Banner" is an administrative unit in Inner Mongolia which is equivalent to a "county".

[34]. This paragraph was quoted from The China Quarterly June 1989 p.235.

[35]. See Economic Integration and Planning in Maoist China by Thomas P. Lyons p.235.

Market-distorting practices are also numerous. Changzhou, for example, produces good quality tractors. But some provinces will not allow Changzhou tractors to be registered and refuse to give gasoline for the tractors because there is usually a rationing system for gasoline in China. Local peasants have to buy high price, low quality tractors which are locally produced. The bikes produced in Shanghai are of better quality but they are sold in other provinces on condition that the consumer buys other inferior quality products produced locally.

Other local protectionist practices include priority for electricity supply and different quality criteria for products produced by other provinces. A very interesting case was quoted to show how the "administrative barriers" or the "frontiers formalities" retards the mobility of goods:

> "A member of a self-employed household in Sichuan who was asked to buy lumber for his township's mechanized brickyard. It took him fifty-four days and 1453 yuan for seven permits to transport thirteen cubic meters of used building materials, which he bought for 3300 yuan, a mere sixty kilometers"(World Bank, 1985, p.86).

One relevant fact is that after the local budget contracting, which we will discuss in detail in Part 3, local governments in all areas began to invest in industries which increase the financial gains from processing local raw materials. They try to restrict the flow of those materials to other regions.

In fact, the provincial authority itself is an agency of the provincial rather than national government. The provinces individually formulate policies and interpret policy instructions from the central level. Such a provincial dimension of the planning system reinforces the local incentives to pursue import-substitution strategies. "The behaviour of provincial levels frequently seems to reflect a regionalist perspective" (Thomas P.Lyons, p.235). Tao Zhu, who was Party secretary of Guangdong province, had reportedly said, "We must insist... that in future Guangdong's grain must fully supply this province, and only then can it be exported." Li Jingchuan, who was the first secretary of Sichuan province in the Cultural Revolution, said that he refused to transport Sichuan's food surplus to other provinces.[36]

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[36]. This example was quoted in Thomas Lyons book, p.235.

The conclusion from the World Bank report is consistent with our foregoing analysis:

> "Both the hierarchical and cellular models have an inherent tendency toward autarky. In the hierarchical, centrally planned system, ministries strive individually for self-sufficiency; in the cellular system, each geographical planning unit tries to be self-contained. Ministral autarky, or departmentalism, is a feature of most socialist economies, but the additional feature of regionalism appears to be a distinctively Chinese characteristic"(World Bank, 1988, p.68).

5.3 The Spatial Aspect of Economic Integration

Since the hypothesis that China is not economically integrated is very important for the present study, it is worth testing carefully, and Part 3 will focus on that. Assuming that the argument is valid, then to integrate region by region would appear to be the most feasible way to change the situation. We will then naturally arrive at the conclusion that China should be divided into regions and integrated at the regional level. The discussion of China's economic integration is therefore first of all one of regionalizing the economy, i.e. subdividing the economy into geographical regions.

The necessity for China to subdivide into geographical (economic) regions can be explained by the diversity in natural resources and in human (individual and social) conditions. Some Chinese geographers suggest two kinds of zoning at macro-level to analyze the spatial structure of China:[37] As for the natural environment, China could be divided into four regions. But on the basis of economic development levels and production type, China could be divided into three regions, or three geographical belts.

Natural Environment and Human Conditions

In the natural environment the climate can be a good way to see diversity. In fact there are five major climate zones - tropical, subtropical, warm-temperate, temperate and frigid-temperate.

The endowment of natural resources also varies from province to province. Some are endowed with natural waterways, others not. In some provinces there are coal reserves or iron ores, in others not. Some are situated along the coast, others are landlocked. In terms of economic

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[37]. See Yang Wuyuang and Liang Jinshe's article.p.98.

9999development some provinces have already well-developed industries, in other provinces, agriculture is predominant. There is also diversity in other aspects: in the density of population, in the availability of skilled labour, in the level of education, etc. Even the variation of language is impressive: people can find many closely related but mutually unintelligible dialects within the Chinese language group and each of these has a regional focus. All these factors directly or indirectly bring about differences in economic performance and hence in the patterns of economic activities.

As was mentioned earlier, according to its natural endowment, China could be divided into four major areas: the South, the East, the Northwest and the Qing-Tibet Plateau. The East part is well-endowed with coal, oil etc. The South part has well-developed agriculture, water resources and minerals. The Northwest is characterized by agricultural and animal husbandry and the Qing-Tibet Plateau is basically a plateau area as the name implies.

In his book Thomas P. Lyons has mentionedthe environmental factors of China:

> "Size and diversity are among the most important aspects of China's natural endowment. In terms of land area, China is the world's third largest country, extending more than 5000 kilometres from east to west and more than 5500 kilometres from north to south. Wide regional variations in industrial and agricultural potential occur within this vast territory. About 85 percent of China's coal reserves, for example, are located in the northern half of the country, with 60 percent in Shanxi alone ... Iron, like coal, is more plentiful in the northern half of China, with one quarter of the country's reserves located in Liaoning. On the other hand, deposits of lead, zinc, manganese, copper, tungsten, and tin are concentrated south of the Yangtze River... Whereas much of the north experiences an average frost-free period of less than 200 days and an average annual rainfall of less than 50 centimetres, areas of the south are frost-free year-round and receive more than 200 centimetres. Whereas the eastern half of China includes well-watered lowlands and hills, the west is predomi-

nantly a section of rugged uplands and arid or semiarid basins"(1988,p.23).

Level of Economic Development

Apart from natural environment and human conditions, the economic performance and the level of development vary greatly from area to area for some historical reasons: the coastal area is the most developed part of China and the level of development becomes lower in the west inland part. Therefore in terms of development level and production pattern, China can be divided into three basic geographical belts, namely, the western, intermediate (central) and eastern (coastal) belts. Such an overall situation is similar to that of the former Soviet Union where the most developed part is the west part and the development level becomes lower in the east part. In the case of the United States, the most developed part is in the northeast along the Atlantic Ocean.

Table 5.3 Comparison of the Value of Production in Industry and Agriculture in China's Geographical Belts (1985)

Region	Value of Industrial Output billions of yuan	%	Value of Agricultural Output billions of yuan	%
Coastal	56.64	61.2%	12.62	43.3%
Central	24.57	26.5%	10.63	36.6%
Western	11.34	12.3%	5.87	2.2%
Total	92.55	100.0%	29.12	100.0%

Source: Based on Beijing Review 29, 49:8 December 1986.

Table 5.3 gave a brief view of the differences of the three geographic belts, or three macro-regions as some foreign scholars have called them.[38]

The division of China into three geographical belts is only a very rough one, given their high degree of internal differentiation. But for the sake of simplification, such division is perhaps helpful and this division is

[38]. Terry Cannon, for example, has called the three geographic belts as macro-regions in his paper Regions:spatial inequality and regional policy.

also relevant when referring to China's economic development plan The Seventh Five-Year Plan has used such division for analyzing the development strategy

The three-belt division is actually the result of historical development. Before 1949 the Chinese economy was marked by a concentration of modern industry in a few industrial centres mostly in the coastal areas This was first of all because of the greater accessibility of the eastern provinces to the sea and the general east-west flow of the navigable rivers Such concentration was also due to the fact that foreign entrepreneurs and their Chinese counterparts had established various businesses in the coastal area after the Opium War These industrial centres included such large cities as Shanghai, Tianjin, Qingdao, most of which were ex-treaty ports and a few inland river ports and cities

An industrial survey published in 1948 showed that the three major industrial centres, namely, Shanghai, Tianjin and Qingdao accounted for around 4/5 of the industry of the country as a whole

Table 5 4 Industrial Share of Shanghai, Tianjin and Qingdao in 1948

	Motive Power	Employment	No of Factories
Shanghai	57 7%	60 9%	60 4%
Tjanjin	16 8%	9 9%	9 4%
Qingdao	27 4%	4 7%	1 4%

Source: Based on Yuan Li Wu The Spatial Economy of Communist China p 9 Hoover Institution Publication, 1960

In the Northeast provinces, industrial development concentrated on raw material resources such as iron and coal and heavy industry, a result of Russian and Japanese colonization in that area In fact, the northeast provinces had a fairly well-developed transportation network together with the industrial development

Developments in the first Five-Year Plan and later dispersed a significant amount of industrial capacity Of nearly 700 large-and medium-scale projects of the First Five Year Plan, two-thirds were set up in the interior. After the first Five Year Plan, policy measures continued to stimulate a greater spread of economic activity through the country (Terry Cannon, 1990) Regional specialization on the basis of economic

consideration was not emphasized.

This analysis of the environmental factors, both natural and economic, lends credence to the claim that China should have economic-geographical subdivisions other than the administrative divisions.

In fact the Chinese authorities must have been aware of the necessity of having economic subdivisions because there have been various efforts towards regionalization in the history of the People's Republic. The following section will give a brief review of the earlier efforts at regionalization in China.

5.4 Earlier Efforts towards Regionalization

The efforts for regionalization can be traced back to the early 1950s. There were, for example, six administrative regions into which the People's Republic of China was initially divided. These regions were loosely based on the military division pattern. But the division of most interest to the present study is the division into the Seven Cooperative Areas, which was the first real effort towards regionalization.

In 1949 the central administration of China was established with the independence of the People's Republic. In accordance with the Guidance of the Political Consultation Conference, both central and local government implemented democratic reforms to the Chinese economy. The government established a centralized system of managing the national economy and completed land reform. They started to co-ordinate the existing secondary and tertiary sectors, and carried out a general financial reform to rationalize the national fiscal system. By 1952, the rehabilitation of the national economy (from the civil war) was completed and the Chinese economy entered the era of socialist industrialization. In August 1953, Mao Zedong proposed the "General Line of the Chinese Communist Party in the Transition Period", and defined it as the industrialization of the national economy and the realization of the socialist reform. The most distinctive feature of the state mechanism defined in the Constitution at that time was the centralized authority of the government. although indispensable to a planned economy, it inevitably came to have defects stemming from the over-enlargement of the centralized power of the central government. In 1955 the Communist party therefore announced three stipulations for the solution of this problem through the motivation of both the central and local government, and through the democratization of state control and management. For example, provinces and cities were granted the right to supervise and manage enterprises, and local government was allowed to keep 20 percent of profits made by the enterprises. Prior to this announcement, Mao made a speech entitled "On the Ten Major Relation-

ships", in which strong emphasis was given to the autonomy of the local government and relations between the local areas. On the same line, Chen Yun, then the vice Chairman of the Party Committee and a senior leader in charge of economic affairs spoke of the Seven Cooperative Areas needed for the building up of a "well-balanced but independent" industrial system.

The concept of the Seven Areas stemmed from the fact that China has a large territory and huge population, together with the dispersion of basic industries achieved by the first Five-Year Plan.

The Seven Economic Cooperative Areas were the following:

Northeast:	Liaoning, Jilin and Heilongjiang provinces;
North:	Hebei province, Shanxi province, Inner-Mongolia and Beijing;
East:	Shandong, Jiangsu, Anhui, Zhejiang, Fujian, Jiangxi provinces and Shanghai;
Middle:	Henan, Hubei and Hunan provinces;
South:	Guangdong and Guangxi provinces;
Southwest:	Sichuan, Yunnan, Guizhou provinces and Tibet;
Northwest:	Shaanxi, Gansu, Ningxia, Qinghai provinces and Xinjiang.

The establishment of the Seven Cooperative Areas was therefore intended to motivate local government and to stimulate well-balanced development. It was also a reflection of the peoples' will to overcome the problem of poverty and backwardness. The Cultural Revolution, however, deterred the development of the co-operative areas. The idea was raised again in 1975 when Zhou Enlai, the then prime minister, clarified the idea of the two-step strategy for national development which had already been proposed by Mao Zedong in 1964. At one meeting discussing the National Development Plan, Yu Qiuli, chairman of the Planning Commission at that time and the official for economic development, said, "we should establish from 1976 to 1985 an independent but relatively balanced system of national economy and thereafter, based on this achievement, establish the Six Cooperative Areas, each of which is independent but competing and well-balanced as well."

The division into the Six Cooperative Areas was mainly a modification of the original seven Cooperative Areas, with the South China area merged into the Middle China area and hence re-named as Middle-South

Area. It was expected that the Six Areas scheme was to be implemented after the completion of the adjustment of the national economy.

In 1977, Hua Guofong, the party chairman at that time, emphasized the importance of the motivation of both the central and local government for the successful socialist construction of the economy and the role of the Six Co-operative Areas. Based on his remark, the Outline of the Ten Year National Development Plan (1976-1985) was drafted which said that the Six-Area system should be implemented with the inland industrialization.

5.5 Objectives of the Economic Cooperative Areas

Historically, the Six Cooperative Areas have their origin in the Six Administrative Areas which were established with the birth of the People's Republic. For the further promotion of the revolution and building up the socialist national economy, the concept of the Six Administrative Areas was revived. The concept of the Seven Cooperative Areas was primarily intended to merely implement due industrial location in the Mainland. To reduce the disparity between the rural and urban areas of China, agrarian development initiated by the lower level of the administrative unit such as city and county was expected to play a significant role. Moreover, the cooperative relations among the areas were deemed important. The Six Areas should play an important role in coordinating co-operative relations among the lower (than central) level units of administration. From the point of view of industrial location, cooperation between the Areas was crucial, especially for an appropriate supply of energy. Political consideration such as the prosperity of ethnic minorities and the inland development for defensive reasons was also reflected in the idea of the Six Areas. Finally, the complementarity between the development at the national level and at the regional level should be noted. In this regard, too, the government's fundamental policy of motivating both the central and local initiative was considered extremely important in the concept of the Six Areas strategy. Neither the Seven Area Strategy nor the Six Area Strategy, however, have contributed much the economic development. There were various reasons, an important one being that these areas were established by administrative order and the partners did not show much interest in the cooperation schedule. As a result, the Six-Area scheme turned out to promote more administrative restrictions, because between the central and provincial level there was now an extra administrative level - the area administration.

As a matter of fact, economic activities have their own logic. When economic zones are to be established, several important factors should be taken into consideration: the economic performance and the development level; the historical economic relations; the boundaries of economic zones

and their relevance to administrative boundaries etc. There are controversial views on these issues which are not essential to the present study. They are mentioned here only to show that it is by no means easy to attempt economic subdivision.

CHAPTER 6
ECONOMIC ZONE: HORIZONTAL ECONOMIC TIES

Our previous review shows that China's first zones set up in 1958 and after did not give primary consideration to economic rationality. In fact, the course which China has taken since 1949 has been a continuous alternation between centralization and decentralization. In essence, the establishment of China's first zones reflected such a cyclical movement of changing authority to manage goods, money and people. These zones were basically nothing more than administrative entities for the convenience of the central and provincial governments for planning purposes rather than for the market - they were a kind of grouping of provinces.

6.1 New Ideas about Economic Zones - A Repetition of History ?

As late as 1978 when the historical third plenum of the 11th Party Central Committee approved the economic reform in China, no mention of economic zones was made. It was in 1979, when several Japanese economists visited China, that the idea of an economic zone was again brought to the attention. These Japanese economists suggested that there should be economic subdivisions in China other than the administrative subdivisions (provinces). They argued that because of the size of the country's territory and population, the economic performance of different regions within China varies considerably so that it would be easier and more efficient for the purpose of national management if there were economic zones.

One article in a Japanese magazine mentioned the birth of the Shanghai Economic Zone as follows:

> "The idea for the Shanghai Economic Zone had apparently long been brewing in China, but what finally led to its realization was a report by a Japanese mission sent to study the Shanghai economic region upon the request of the Chinese side. The conclusion of the report, dated March 1982, was that Shanghai, with its limited facilities and overcrowding, had to be developed not in the urban regions but in a wider area including the suburbs and at least parts of the surrounding provinces. China's response was quick. With the

State Council's formal approval, the Shanghai Economic Zone was established at the end of 1982."[39]

It seemed that whatever the cause, the issue of economic subdivision had been raised again. In fact, at the macro-level a proposal was mapped out for China's new economic regionalization.[40] According to that proposal, China was to be divided into ten economic zones. The following is the proposal of the ten economic subdivisions (Map 1):

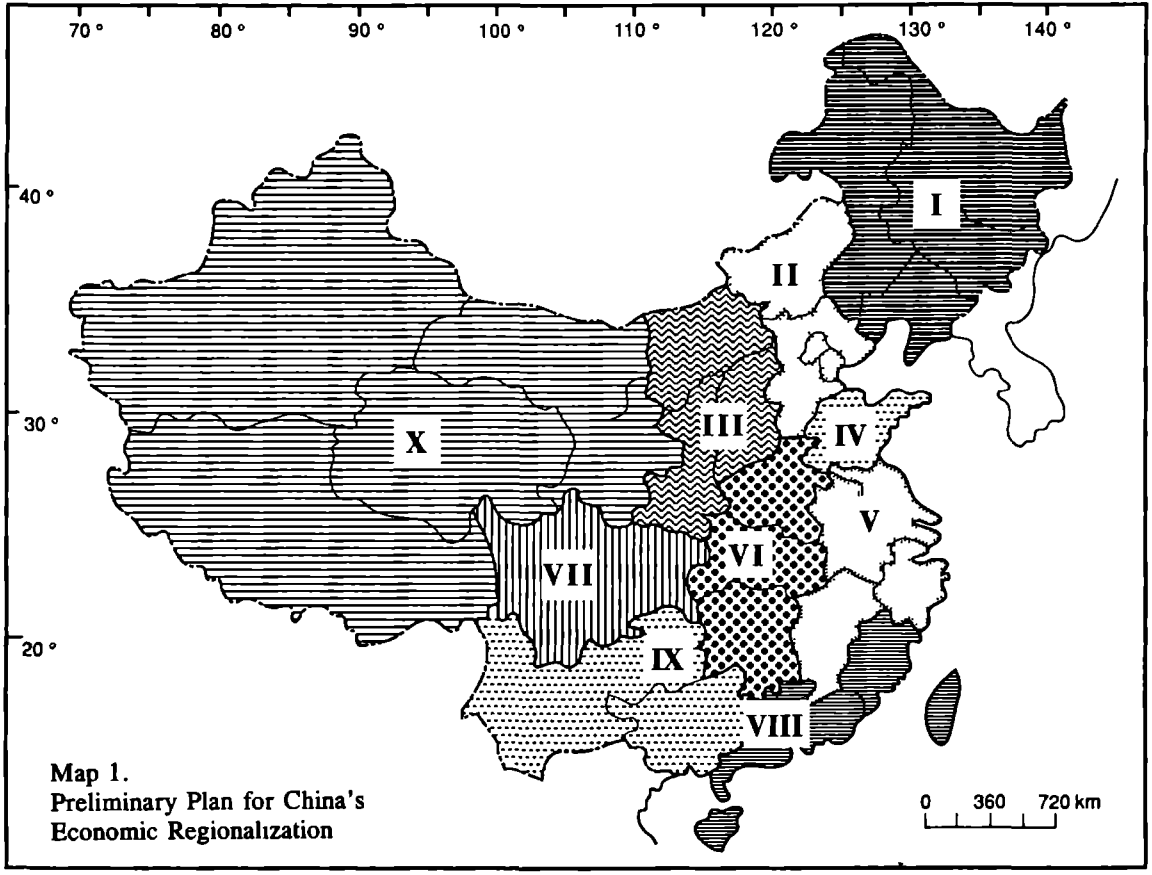
Table 6.1 Preliminary Plan for Regionalization,1982

Name of the Zone	Provinces included
Northwest:	Liaoning,Jilin, Heilongjiang and part of Inner Mongolia;
Jing-jing:	Beijing, Tianjing, Hebei and part of Inner Mongolia;
Jin-Shuan:	Shanxi, Shuanxi and part of Inner Mongolia;
Shangdong:	Shangdong;
Shanghai:	Shanghai, Jiangsu, Zhejiang, Anhui and Jiangxi;
Middle-south:	Henan, Hubei and Hunan;
Sichuan:	Sichuan;
Southeast:	Fujiang, Guangdong and Taiwan;
Southwest:	Guangxi, Yunnan and Guizhou;
Northwest:	Gansu, Ningxia, Qinghai, Xinjiang, Tibet and part of Inner Mongolia

Source: Yang and Liang A New Preliminary Plan of China's Economic Regionalization for Development Strategy p.105.

[39]. Special Report by the JETRO Shanghai Office. See China Newsletter No.71.

[40]. Yang Wuyang and Liang Jinshe have given a detailed description in their article A New Preliminary Plan of China's Economic Regionalization for Development Strategy See "China's Economic Reforms" p.98.



Map 1.
Preliminary Plan for China's
Economic Regionalization

We may notice from the table that each zone occupies a fair-sized area and population, but the natural resources, economic structure, development level and the strength of the energy base and the key (principal) city in the ten zones differ from one another. Moreover, administrative boundaries are not the most important considerations. Inner Mongolia, for example, belongs to several zones.

While these economic zones have been proposed for further discussion, some economic zones were born in reality in the 1980s. To bypass administrative boundaries, twenty-four economic zones were in operation by 1988 (Map 2). These zones are in fact "inter-regional horizontal economic networks", among which the Northeast China Economic Zone and the Shanghai Economic Zone are province-level economic zones. Other economic zones are inter-provincial zones of lower level authorities such as the Bohai Economic Zone (centred on Tianjin) and the Xuzhou Economic Zone. In the provincial and lower level economic zones, exchange of commodities (compensation trade in particular) between local authorities has been encouraged and agreements have been reached. Economic decisions are supposed to be gradually separated from administrative ones. Furthermore, these economic decisions are devolved increasingly to the enterprises themselves.

What is interesting, therefore, is the question: are there any differences between economic zones and economic cooperative areas? If the answer is "yes", then what are they?

As Wang Lin, then the head of the Shanghai Economic Zone Planning Office, said:

> "The experience of co-operative areas reveals the fact that they are more of an administrative nature. As a result, major conflicts among provinces could not be resolved within the co-operative areas while some minor conflicts could be resolved without the cooperative areas. The scheme turned out to be a failure."[41]

The major efforts in the past had aimed at avoiding over-centralization and at motivating local authorities. The economic zones were, however, inspired by other motives.

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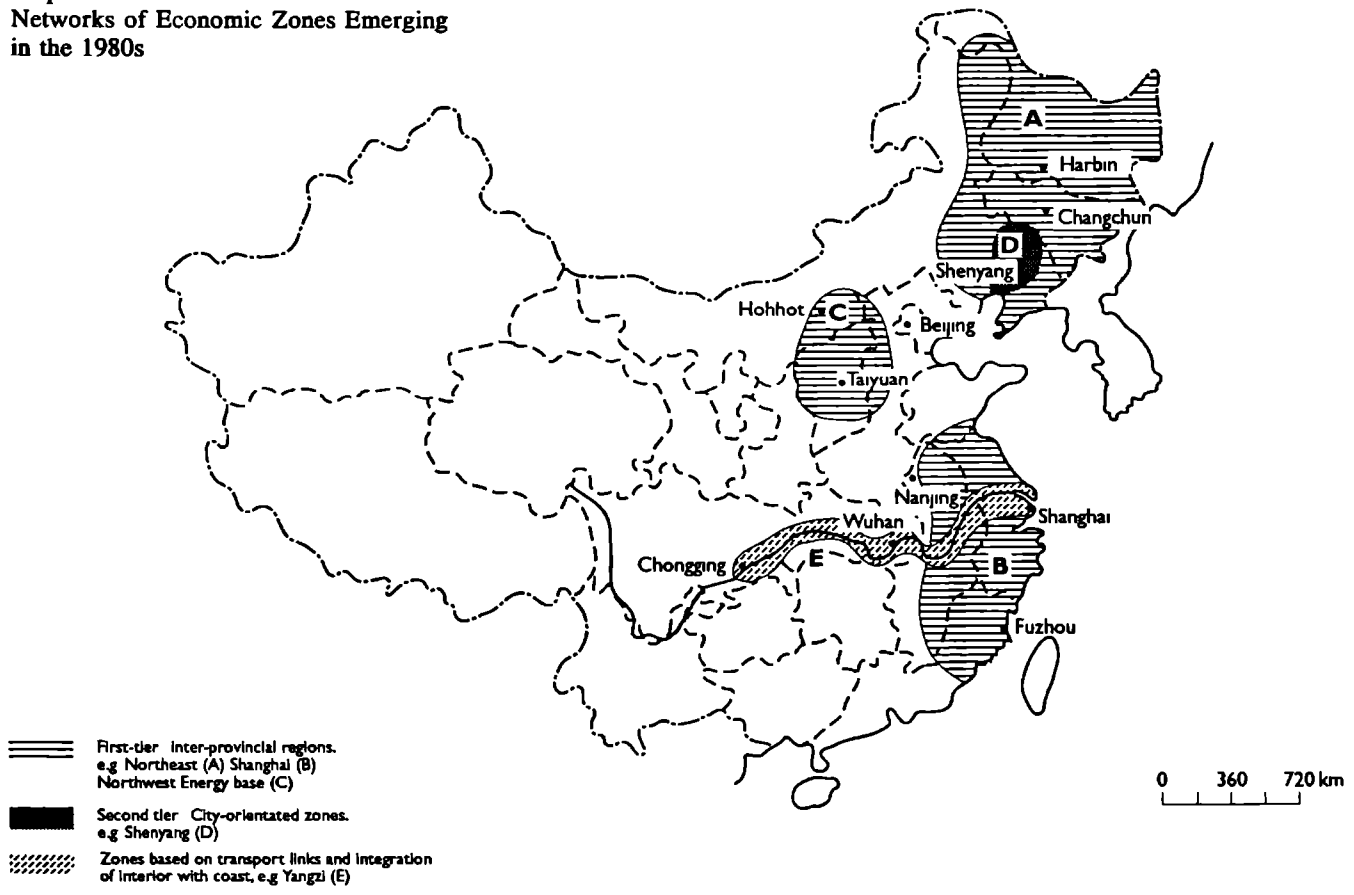
[41]. Wang Lin also mentioned the economic principle or the economic lever in coordinating the relation among provinces. See Preliminary Research on the Development Strategy of the Shanghai Economic Zone.

Map 2.
Networks of Economic Zones Emerging in the 1980s



Let us now examine the Shanghai Economic Zone - the first economic zone in China - looking into the differences between economic zones and economic co-operative areas.

6.2 The Shanghai Economic Zone: An Experiment in Economic Integration

When the idea of economic zones resurfaced in the late 1970s, it was in a rather vague form. It was the State Council directive in July 1980 - "Provisional Regulations on Promoting Economic Cooperation" - that spelled out the concept of economic zones.[42] On December 22, 1982, the State Council issued a circular on the formation of a planning office for the Shanghai Economic Zone (Map 3). Originally the zone embraced Shanghai and nine medium-size cities, together with 54 counties in Jiangsu and Zhejiang provinces. It has expanded later to include Anhui, Jiangxi and Fujian provinces as well.

What was under consideration in establishing economic zones was "to implement the horizontal policy and to break through the previous vertical organization".[43] In fact this is an important part of economic reform in China. The original ten cities included in the Shanghai Economic Zone scheme were Shanghai, Suzhou, Wuxi, Changzhou, Shaoxin, Huzhou, Ningbo, Nanjin, Nantong and Jiaxin. The Zone, as was designed, is a network of cities open to the world outside the Zone. The Planning Office for the Shanghai Economic Zone was set up to serve as the official body for its management. The Office acts both as co-ordinator and organizer for the Zone. As we will see later, the function of the Office is very much like that of the Commission of the EC: Government departments represented in the office of the zone were the State Economic Commission, the Ministry of Machinery-Building Industry, the Ministry of Communications and six other ministries.

Various kinds of economic links had existed between the above ten cities in the past. Yet, the demarcations mentioned earlier had impeded the development of closer economic links to a degree and thus impeded the development of productive forces.

It is now not difficult to see the differences between the economic zones and the cooperative areas. First of all, the economic dimension is emphasized. The name "economic zones" itself implies that the purpose of establishing them is to realize the dual targets of promoting rational

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[42]. China Economic Yearbook 1981 edition p.II-128.

[43]. See special report of JETRO, 1987.

division of labour and cooperation and increasing economic efficiency without running into the restrictions imposed by vertical administrative compartmentalization. Therefore a key task of the economic zone is to remove artificial economic barriers from a long-term perspective. Intra-regional co-operation - popularly known in China as horizontal links - would, as was hoped, improve economic efficiency and help to solve some major regional problems such as the problems of energy, transportation and external (foreign) trade.

Secondly, the role cities are going to play is crucial. As the Shanghai Economic Zone is a metropolitan region,[44] the cities chosen as centres of development are allowed to function beyond the normal administrative limits governing cities. Each city is permitted to enhance and promote its existing advantages. The network of the Shanghai Economic Zone is centred on Shanghai and is backed by numerous medium-size cities. Shen Jun-bo, a scholar in Shanghai Social Sciences Academy put forward a formula which summarizes the nature of economic zones: Economic Zone = centre city + horizontal relations + division of labour.[45]

Thirdly, the establishment of economic zones calls for economic co-operation among regions with differences in natural resources, industrial structure and the availability of capital. Therefore it has more of a voluntary nature and a give-and-take approach is involved to form some sort of "common market". It facilitates joint production, the distribution of goods, financing, the exchange of scientific and technical information and personnel. This is very much alike to the EC Common Market, which has as a basic task to facilitate the movement of capital, commodity and persons among the member countries.

Fourthly, the entire idea of setting up economic zones is at the experimental stage. Each economic zone as an economic bloc is allowed to find its own way of development by trial and error.

Ever since the birth of the Shanghai Economic Zone, there has been steady progress in regional integration, the co-financing of the project for electricity and the joint-effort in harnessing Tai Lake (Taihu) being two examples. In the sphere of sector integration the most successful examples are the integration in the machinery industry and in the bicycle industry, which will be discussed in detail in Part 3.

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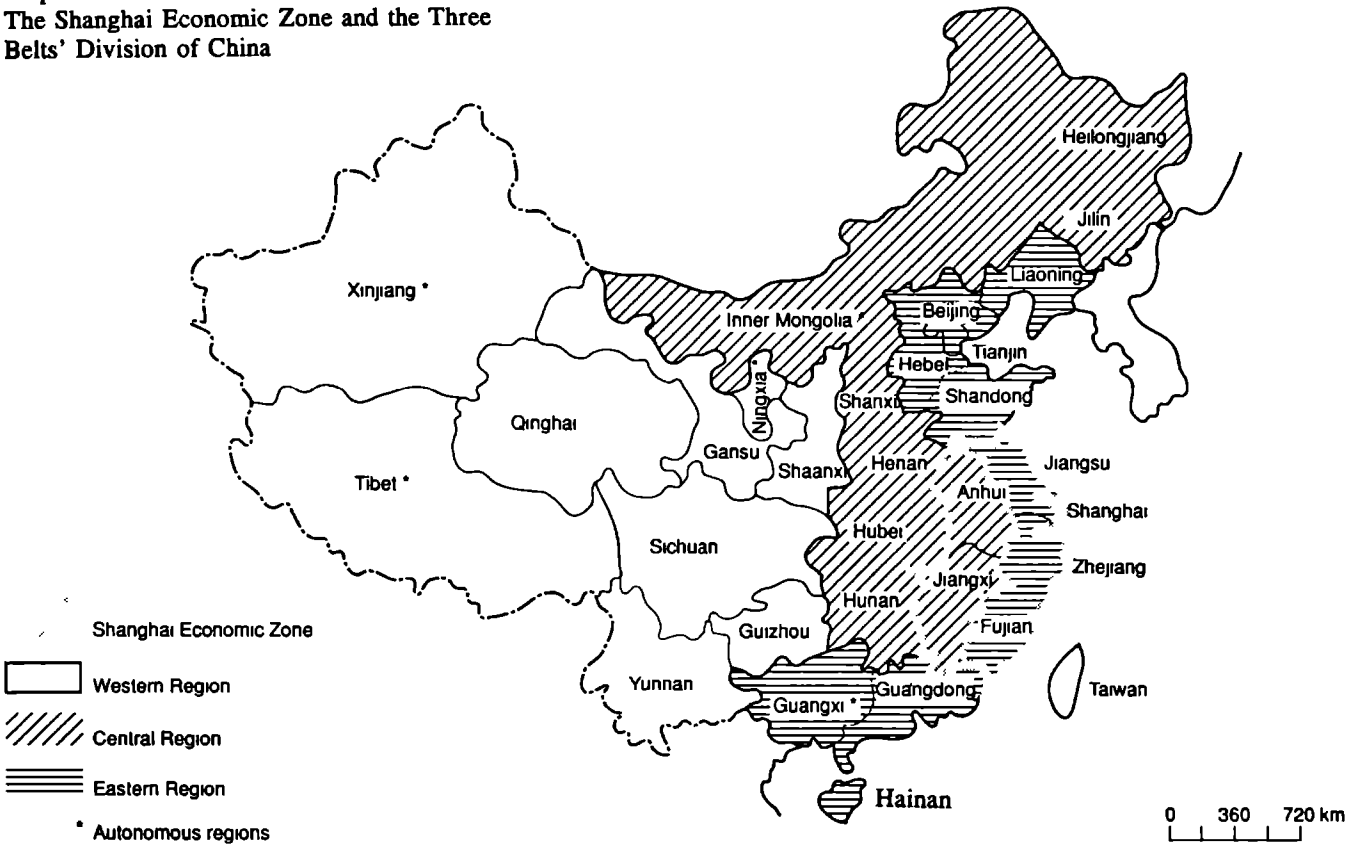
[44]. The idea behind the Shanghai Economic Zone was to ensure a sound functioning of Shanghai as a large city, as proposed by the Japanese economists.

[45]. See Research Papers on The Shanghai Economic Zone p.307 Department of Economics, Jiangsu Social Sciences Academy.

Map 3.
The Shanghai Economic Zone and the Three Belts' Division of China



The establishment of the Shanghai Economic Zone is therefore by no means the repetition of history, since it did not merely intend to have economic subdivisions. Rather, it aimed at regional integration in order to encourage the "market relations" or "horizontal ties" within the zone. This is indeed a new challenge.

6.3 The Potential Gains from Regional Integration in the Shanghai Economic Zone

Theoretically, the potential gains from regional integration in China, as in the EC, come from: economies of scale, the division of labour and enhanced competition. In this section the potential gains from economic integration will be examined in the Shanghai Economic Zone perspective.

Economies of Scale

Before the establishment of the Zone, each province pursued a "small but all embracing"[46] policy to ensure self-sufficiency. There were more vertical links than horizontal links. As a result the processing industry dominated Jiangsu and Zhejiang provinces as well as Shanghai. It was quite natural that most branches of industries were characterized by duplicate investment and low production, which we will discuss more later.

In Part 1, some criteria of minimum economic efficiency have been mentioned. While these criteria may vary from country to country and from time to time, they can at least serve as a reference indicator. In the Shanghai Economic Zone, many provinces are producing products far below the efficient size. As long as the market is organized on a provincial or municipal base, it will be segmented so that it remains impossible to reap the benefits of economies of scale. There are great economic losses in terms of design, management and research for new product.

Many of the major cities in the Shanghai Economic Zone are coastal cities. To choose one or two among these cities to be port(s) for exportation instead of constructing several ports is also important in terms of economies of scale. Gains may also be obtained from co-operation in the chemical industry, cement or glass industry etc., which show a tendency for economies of scale, especially in those cities where waterways are available for transportation, so that the gains from economies of scale will not be totally offset by transportation costs.

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[46]. "Small but all embracing" means that the economy has established all the essential industries, such as food, machinery, chemical fertilizer and textile industries.

The Division of Labour

Specialization should be the major feature of the Shanghai Economic Zone. The policy of establishing economic zones is actually a policy of regional comparative advantage: particular areas are thought to be more efficient than others in producing some products so they should specialize by exploiting their cost advantage. Several specialization patterns can be envisaged in the Shanghai Economic Zone:

1.Specialization for the Zone as a whole

Comparatively speaking, the Shanghai Economic Zone, especially the original two provinces (Jiangsu and Zhejiang) and Shanghai, all of which are located in the coastal (eastern) area, is the "developed" part of China. It has a relatively long history and therefore a solid foundation for industries. The comparative advantage lies in the processing industry, shipping industry, electronic industry and machinery industry. The Shanghai Economic Zone is also a relatively strong area with regard to foreign trade, with Shanghai Port, Zhangjiakou Port, Nantong Port and Beilun Port (under construction) for exportation. In terms of regional development strategy, emphasis should be given to these fields for the Shanghai Economic Zone as a whole. According to the recent report compiled by the state Planning Commission, the Yangtze River Delta Economic Zone, into which the Shanghai Economic Zone has changed,[47] will focus on "high technology and processing industry."

2.Specialization for some areas within the Zone

Due to the lack of energy resources but having comparative advantage in technology and easier access to transportation, Shanghai and some other cities in Jiangsu province (Wuxi, Nanjing etc.) have been centres for processing industries. This is a consequence of historical development. Being located near the sea, the coastal cities like Shanghai have comparative advantage in transportation. Shanghai and other coastal cities may therefore be able to specialize in the processing industry. The north part of Anhui province is rich in coal. An energy base for the Zone may develop there. Since Jiangxi province is abundant in minerals, it may specialize in the exploitation of these minerals. In other words, it is feasible to have some sub-economic zones within the framework of the whole Zone for the purpose of specialization.

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[47]. The Yangtze River Delta Economic Zone consists of all provinces of the Shanghai Economic Zone except Fujian province.

3.Specialization for individual cities

Traditionally, some cities have some comparative advantages, to mention just a few:

Hangzhou	- light industry, especially silk industry;
Wuxi	- electronic industry;
Suzhou	- textile industry, especially silk industry;
Nantong	- light industry, port;
Ningbo	- light industry, port;
Changzhou	- electronic industry.

These traditions make specialization at the level of individual cities possible. On the other hand, it is understandable that due to huge investments in immovable plant and to the difficulty of retro-fitting, the geographical pattern of industrial production often shows considerable inertia. Differentiation of products is therefore a very attractive form of specialization. For several cities which have the advantage of having a developing textile industry, such as Suzhou, Changzhou, Wuxi, division of labour is possible with each city specializing in one kind of textile: wool, cotton etc. - specialization by differentiation of products. All these comparative advantages have existed as a result of historical development and natural endowment. To exploit these advantages is the target of regional development strategy.

Competition

The theory of economic integration tells us that the removal of barriers to trade will increase the number of potential competitors; a wider market sustains a greater number of efficient production units; free movement of factors of production will enlarge both the output market and the input market; and economic integration extends the openness of the competition in the market.

For regional integration in China, these four arguments still hold true. As a matter of fact, the importance of competition in promoting efficiency has been recognized. "An essential policy for promoting competition is allowing free entry into all kinds of economic activities. Enterprises should be given the right and, indeed, be encouraged to enter new kinds of activities if they have the capacity to do so, and to withdraw from activities that are no longer wanted by the market or where they cannot compete with more efficient enterprises" (World Bank, 1985, p.166).

Early at the beginning of the economic reform, provisional regula-

tions were adopted by the executive meeting of the State Council to "develop and protect the socialist competition".[48] It is interesting to notice that the importance of the autonomy of the enterprises was mentioned:

> "To develop competition, an enterprise must be granted greater power to make its own decisions and its status as a relatively independent commodity producer should be respected."[49]

Indeed this is the basis for economic integration.

Another important point was also mentioned, i.e. the price mechanism as a signal for competition. "To develop competition, irrational prices must be readjusted gradually."[50]

Undoubtedly market information is the precondition for successful competition. When the economic integration progresses, enterprises are no longer protected by the administration as in the past. They now have to stand on their own two feet. Market information is therefore of crucial significance. Economic integration should provide more information for competition. In the Shanghai Economic Zone most industries are now convening joint conferences to exchange market information. Joint conferences have been held in the fields of chemical industry, statistics, banking, spinning, metallurgy, transportation, electronics, light industry and tourism.

Trading fairs are another form of opening the market to transcend the old barriers. In June 1985, the Trading Fair for Light Industry Products of the Shanghai Economic Zone was held in Beijing. There were 345 visitors (companies, enterprises, etc.) to this Fair and 87 contracts were signed. In April 1986, the Exhibition for Textile Products of the Shanghai Economic Zone was held in the Shanghai Exhibition Centre, with 3000 visitors and total transactions amounting to 210 million yuan.[51] At the

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[48]. The full title of the regulations is Provisional Regulations concerning the Development and Protection of Socialist Competition .See Xue Muo Qiao Almanac of China's Economy Eurasia Press 1981.

[49]. Ibid. Article 2.

[50]. Ibid. Article 5.

[51]. Speech at the Theoretical Seminar for the Shanghai Economic Zone Wang Ling. See World Economic Herald No.304 September 1 1986.

same time, a data network has been set up to meet the needs of the different industries. "Striking effects have already been obtained in exchanges of information and experience, procurement of commodities, preparation of plans and so on."[52]

6.4 Motives of Integration in the Shanghai Economic Zone

At this stage it is worth glancing over the motivation for integration in the Shanghai Economic Zone. The following is a summary of various motives for integration in the Shanghai Economic Zone:

Table 6.2 Motives for Integration in the Shanghai Economic Zone

Political	Economic
1. Management convenience	1. Allocative efficiency
2. Motivation for localities	2. Economic cooperation
3. External catalyst	3. Technology diffusion
4. Balanced development	4. Common problems

In terms of management convenience it has already beenmentioned that different zones which suit different national and regional targets will improve regional efficiency. Being given more autonomy at zone level, the localities will be more motivated to solve regional problems which the national authorities cannot or will not solve. In the past there was little cooperation among provinces and some problems involving mutual interests were left unsolved for years. In the Shanghai Economic Zone the project of Lake Taihu has been one of such examples. Although facing constant danger of flooding, the provinces had not been able to co-operate to manage the lake. Lake Taihu is also the biggest water and fishery resource in all South China. But the development plan for Lake Taihu was hardly able to progress.

The external catalyst, in the case of the Shanghai Economic Zone, refers to the determination of central government to break through the previous "vertical" hierarchy and to transcend the horizontal restrictions which had long plagued attempts to do business across the boundaries of cities and provinces. This has been reflected in the various kinds of

[52]. China Newsletter No.71 1987 p.14.

directives issued by the State Council, including provisions to promote "horizontal economic ties".

Allocative efficiency has been the basic theme of economic integration. In general, economic integration in the Shanghai Economic Zone will enable the provinces located in the coastal region to develop their advantages and Shanghai may have more opportunity to be involved in precision-industry, finance etc., and shift some industries which should be closer to the source of raw material supply and more suitable to other cities. For Jiangxi and Anhui province, their motivation for joining the Shanghai Economic Zone scheme is to have more technology and capital for their own development. Ni Xuan-ce, the head of Jiangxi province has reportedly said "To attract investment from other provinces in the country, we are ready to give up some of our profits and pursue a policy which is favourable to investors from other provinces."[53] He even gave details of such favourable treatment of external investments: for investment from other provinces (outside of the Shanghai Economic Zone), Jiangxi would consider 4:6 division of the profits, which implies that the other provinces could get 10% more. For investment from provinces in the Shanghai Economic Zone, Jiangxi province would consider another 10% concession based on the 4:6 profit division ratio.[54]

6.5 Economic Zones: Possible Problems

Having discussed the advantages of establishing an economic zone, the other side of the story, the possible problems will be considered as well.

We already mentioned that one of the probable effects of the free movement of factors of production, according to the growth-pole theory, is that economic activities will be attracted to one or a few centres which have easier communication, better infrastructure and the availability of skilled labour and expertise or other advantages. This is also true of the Shanghai Economic Zone. It is a well-known fact to the Chinese and to foreigners that Shanghai is over-crowded to an explosive extent. The four cities in Jiangsu Province - Suzhou, Changzhou, Wuxi and Nantong - are also overcrowded, population density in these four cities being more than 4000 per square kilometre. While there are potential gains from regional economic integration, the problem of congestion will tend to become more serious and this could partially offset the gains if no appropriate policy is

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[53]. See Theoretical Issues of the Shanghai Economic Zone p.76.

[54]. Ibid.

adopted.

The location of industries can be an issue of importance too. Economic integration will enable some large enterprises to become more profitable due to economies of scale, and this is economically justifiable. But for some industries - the bicycle industry for example - production should probably be concentrated more in small rather than large cities. This is because the economic costs of labour, land, materials and transport are much higher in larger cities, and enterprises producing a standard product (such as bicycles) are "unlikely to justify paying such additional costs" (World Bank 1988, p.81). In the World Bank report's estimation, the economic costs of production for the Shanghai bicycle factory in its present location are at least 10-20 yuan per bicycle greater than if it remained under the same excellent management but was located in a nearby medium-size city.

Another possible problem related to the congestion problem in large cities in China is further urbanization. In the past several decades, urbanization has been under the control of the central government. In the period from 1949 to 1960, when the level of urbanization doubled from "just over 10 percent to just 20 percent",[55] some measures were taken to stop the influx of rural migrants. From 1961 to 1976, the urban population decreased from 130 million to 112 million,[56] and the level of China's urbanization declined from over 19 percent to 10 percent. But from 1977 onwards, the urbanization process has regained its vitality, and the level of China's urbanization was estimated in 1984 at 20 percent.[57] The official policy of the national government is to attempt to divert the rising wave of rural-urban migration to the big cities. In the Economic Zone scheme policy measures should be taken accordingly. The development of medium-size towns and township enterprises to absorb the surplus of labour due to integration and industrial adjustment could be a possible solution.

There are more issues that should come into consideration one of which is the disparity of income. Though economic integration as a whole may bring gains, some of the participants may benefit more than others. In China, the officials and some people in the west region now feel that their region is being left behind. In the Shanghai Economic Zone, Jiangsu

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[55]. This figure was quoted from C. C. Lau in his article Urban China in Transition - The Impact of Economic Reforms.

[56]. Ibid.p.111.

[57]. See Shen Pai-xin's article in Preliminary research on the Development Strategy of the Shanghai Economic Zone, p.118.

province shows its concern if Shanghai benefits too much from the economic zone scheme. Policies have to be formulated to deal with such problems. For example, the policy to encourage enterprises from the "developed" part to participate in joint ventures or encourage direct investment is one of such policies.[58]

In China areas are defined as being below the poverty line if the income per person is less than 200 yuan and the grain per person 200 kg per year. At national level, a budget allocation of 500 million yuan per year has been made since 1980 to these areas. Apart from such a budget allocation, there are also favourable policies such as tax exemptions for rural industries and lower interest rates for infrastructure loans. The economic zone scheme should include some further measures to help the backward areas, including defining the poverty line in the zone. Furthermore, the price of some raw materials will also be the focus of the distribution of benefits.

The important role Shanghai has played within the Zone cannot be ignored. According to Huzhou's statistics, of the water transport in that city, 74% is from Shanghai and 71% goes to Shanghai, whereas Jiangsu accounts for 24% and the goods from Hangzhou, the provincial capital, accounts for only 5%. Another sample survey in Shenzhi township Jiangsu province covering 112 households indicates that among the durable goods used in the households in the township 42% of wristwatches, 32% of sewing-machines, 20% of TVs came from Shanghai. The future integration may largely depend upon how much Shanghai is willing to cooperate, or put it in a different way, how much Shanghai may get in return from the integrative scheme.

Over the long-term a further problem may be the lack of an effective political administrative structure to deal with the problems arising in the zones. The Shanghai Economic Zone has outgrown the existing political structures. Whether there should be some administrative changes accordingly will be a question in due course, if the economic zone scheme makes real progress.

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[58]. There are several (inter)national joint venture projects in Xinjiang including fruit canning and other food processing, a truck assembly plant and a textile factory. Shanghai has sent its delegation to Xinjiang to negotiate for projects. Shanghai will provide capital and technology to Xinjiang and get raw material supplied from Xinjiang.

CHAPTER 7
POLICY IMPLICATIONS: MECHANISMS AND PRINCIPLES FOR REGIONAL INTEGRATION IN CHINA

In order to have economic integration and to establish an unimpeded national market in China, two steps have to be taken: first to decentralize the vertically organized economy and then to integrate step by step. The principles which have been proved effective in promoting progress in the EC integration can be applied as well to the development of economic zones in China, too. In this chapter we will discuss some policy implications derived from the EC integration experience could be relevant for regional economic integration in China.

7.1 Negative Integration versus Positive Integration

It has been shown that the Chinese economy has been organized on an administrative basis and the national management system was basically copied from the Soviet Union. Past experience has revealed many defects in this highly-centralized and vertically organized economic management: enterprises have become mere appendages of administrative organs at different levels; they were less motivated; by managing the economy through administrative systems and divisions, the natural "market" relations within the economy have been cut off; the circulation of commodities has been impeded and capital from central government, if unused, has to go back to where it came from.

To encourage horizontal links, nationwide decentralization is therefore necessary because it is indispensable for the regional integration later.

We have already mentioned that "centralization" does not necessarily mean "integration". "Decentralization" therefore intends to eliminate the restrictions to economic cooperation. Individual enterprises have to be motivated by being given more autonomy and thus have more freedom for "trade". We may regard decentralization as "negative integration" because negative integration is, by definition, "removal of impediments on trade" and "the elimination of any restrictions on the process of trade liberalization."

The "impediments" here do not refer to tariffs because there are normally no direct tariffs for mutual trade within a nation. Yet there are "administrative tariffs", i.e. barriers which restrict the movement of production factors. The provincial self-sufficiency tendency and the sectoral

planning fragmentation - vertical management system - has impeded the process of regional integration.

In China, negative integration may imply the following:

- the elimination of restrictions on the independence of manage ment for enterprises (the authority of lower level should receive more decision-power than before) so that the enterprises will be responsible for their own profits and losses, and will "behave like enterprises in a market economy" and have the incentive to exchange their products, which is the basis for integration.

- reduction of the scope of uniform price set by the state. The uniform price acts sometimes like a tariff which discourages the movement of commodities. If, for example, the bicycles produced in Shanghai are of better quality but of the same price as those bicycles produced in other cities, there is less incentive for the bicycle-producers in Shanghai to transport their products to other provinces. This is simply because they could have more profits if they would be able to raise the price.

- the removal of barriers not only to the free movement of goods, but also to that of capital (funds) and persons within and between sectors.

Economic reform in China has so far achieved some of these ends. In fact the state now permits enterprises and administrative units to invest in each other. This has broken the geographical ties on industry and enables enterprises to seek their own sources of raw materials as well as profitable markets for products. The vertical system in which individual production companies were enmeshed has been reformed, giving them a wider range of autonomy. The autonomous authority was granted to the economic units through such means as the "Provisional Regulations for Increasing the Autonomy of State-run Manufacturing Enterprises" (May 1984), the "Provisional Regulations for the Improvement of the Planning System" (October 1984) and the second step of the profit-turnover-to-taxation reform.[59] Some of the barriers which divided individual companies from each other along vertical lines have been removed. Since

[59]. The profit-turnover-to-taxation reform refers to measures to change the profits of individual enterprises into taxation so that enterprises are more motivated.

enterprises, as reforms promise, are becoming more autonomous than they used to be, they are supposed to take their own decisions about production and investment. A firm's output is therefore no longer subject to planning quotas and profit targets rather than physical output criteria are stressed. The relationship between the enterprise and government authorities takes the form of a contract. A semi-commercial relationship has thus been emphasized.

For integration to be realized, especially integration through market forces, the key point is enterprise autonomy, meaning that enterprises must have some autonomy. In a market economy, this is not a problem. But what about the situation in the Chinese economy after all these measures? The following is a survey of the enterprise autonomy in Shanghai:

Table 7.1 Autonomy in Enterprises in Shanghai Municipality

	Complete autonomy	Partial autonomy	None
Planning authority	21.9%	64.6%	13.4%
Authority to manage production	66.2%	32.8%	1.0%
Authority in personnel matters	17.3%	70.2%	12.4%
Appointment/dismissal of executives	17.3%	70.2%	12.4%
Dismissal of workers	12.3%	37.7%	50.8%
Financial authority	11.9%	77.1%	11.0%
Authority to set product prices	11.0%	57.6%	29.4%
Authority to sell products	44.5%	49.6%	5.7%

Source: Jingji Yanjiu Economic Research No.4 1988.

The above table shows that more than half of the enterprises in Shanghai have the authority to manage production and nearly half of them have authority to sell products. These facts are important for integration.

In general, "Shanghai's traditional economic forte, light industry, meant that the city's economy would - and did - come under more stringent Beijing control than that of any other provincial-level in China" (Lynn T.White III, 1990 p.31). In some other places such as the special economic zones, enterprises are granted more autonomy than Shanghai. Hence the autonomy in enterprises in Shanghai, as shown, is not an exception in the

national context

The question is how will such a trend develop?

It is a little bit difficult to predict, because China ever since 1949 has experienced several cyclical movements of centralization and decentralization. The answer to this question depends mostly on the policy for the economy as a whole Negative integration will nevertheless progress with the measures for decentralization On the other hand, economic integration will not achieve much if there are no schemes for facilitating the mechanisms for integration Put another way, to remove impediments and to eliminate restrictions is not enough. Something else should be done to promote integration - that is the "introduction of co-operation" or "positive integration".

In terms of positive integration, we may again pick up the Shanghai Economic Zone as an example The task for the Planning Office for Shanghai Economic Zone is to 'work out" an economic co-operation scheme. This is in fact a task of positive integration, as we will see later.

7.2 Integration through Market Forces versus Integration through Policy Measures

As in the case of the European economic integration, economic integration in China is also a process of both integration through market forces and integration through policy measures, or simply, both "private" integration and "official" integration Generally, at the outset, policy induced integration is more significant Yet integration through market forces must grow later

Integration through policy measures

For positive integration, other measures are relevant among which consultation comes first - that is, a discussion or an exchange of views on joint economic development The ultimate aim is to create the necessary conditions and prerequisites for promoting economic ties among the members of regional integration schemes in such spheres as production, technology and investment

The practice of the Shanghai Economic Zone shows that the first step toward positive integration was the set-up of an information exchange network within the Shanghai Economic Zone. It was the easiest step because it was intended to benefit all concerned. Co-operation is one step further Here the concept of "a partial customs union cum investment plan" seems quite relevant to regional integration in China Some projects for exploration of natural resources and projects for infrastructure are usually the candidates for such investment plans and therefore should be taken into

consideration when outlining the development strategy for the economic zone. This is because the task of regional integration is not only just concerned with the operation of production facilities but also with all new investments so as to avoid duplication and to ensure that the investments take into consideration the principle of both scale and division of labour. Cooperation among the integration participants will enable them to extend the scope of planning solutions for the key regional economic problems which are of great significance to further regional economic development.

Integration through market forces

As integration through market forces and integration through policy measures are inter-dependent, integration through market forces will be induced by the progress of integration through policy measures. This is a point proved in EC integration and has also been proved in the case of the Shanghai Economic Zone. While the official policy measures were being taken and integration was progressing slowly in the Shanghai Economic Zone, the possibilities of private market integration seemed quite real. Take Wuxi county as an example. Among the 2295 enterprises in Wuxi county, 728 had "private" trading links on a voluntary basis with other 7 cities within the Shanghai Economic Zone by the end of 1983. Wuxi county alone had created 400 million yuan's value of production as compared with the level without integration. Employment improved too.[60]

The case of Wuxi county is in fact typical for integration through market forces. The Wuxi region, including Wuxi city (Wuxi D.C.) and three other counties - Wuxi, Yixing and Jiangyin - has witnessed rapid market integration. As one foreign article pointed out: enterprises "have transferred part of the production process to rural households and have integrated with enterprises in other cities in exchange for energy and raw materials (for which the Wuxi region is so desperate). In other words, the cities in the Wuxi region in the mid-1980s developed to such an extent that these were not only the passive recipients of economic integration but also active initiators. Furthermore, some of the effects of industrial restructuring in Shanghai under the economic reforms have led to more development in the Wuxi region than would have been expected, and this has been especially the case since the establishment of the Shanghai Economic Region in 1982 (Terry Cannon et.al.1990 p.222).

It is worthwhile to study further why integration through market forces has developed faster than integration through policy measures. One

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[60]. Yu qian in his article Views on Rural Urban Integration of the Shanghai economic Zone gives some more examples in this regard.

reason is that integration through market forces is on a voluntary basis. This kind of integration through market forces has been so thriving just because it is of mutual benefit. It is therefore more flexible and easier to adjust.

In fact economic integration in the Shanghai Economic Zone implies increased inter- and/or intra-regional trade. By exploiting their cost advantage, each province is supposed to specialize in some products, and the surplus and deficits for the different products of each should thus be equalized. Moreover, economic integration implies more effective supply-demand relations both in the input and output market

The concept of the "Market" used to be taboo in China. Almost everything was "planned". Private economic links were even not allowed. The policy of the central government to introduce market elements into the economy has encouraged horizontal links in general and therefore has fostered integration from below. This is of great significance to the development of the economic zones. It is here that the economic zones are fundamentally different from the economic cooperative areas. There are reasons to expect "integration through market forces" to be more effective and more significant, as is the case with the EC.

7.3 Constitutional Arrangements and Institutional Arrangements

As in the case of European economic integration, the successful realization of regional integration in China also implies the existence of a well-developed system of institutional arrangements and a corresponding set of regulations and rules. Hence both the constitutional and the institutional arrangements of China's regional integration will be discussed in this section.

Institutional Arrangements

The experience of the Shanghai Economic Zone over the past few years has already shown that it is advisable and beneficial for the interested provinces and cities (together with the surrounding rural areas) to pool their efforts within the framework of various types of regional organizations. One of the tasks of these institutions is to improve the existing activities and to establish new inter-city (provincial) and regional economic agencies capable of co-ordinating and/or directly guiding the co-operation of the participants in the most important and promising sectors. When we look back to the institutional arrangements of the EC with the Commission as the "motor" and which represents the interests of the whole Community, the Council of Ministers as the decision-maker and the European Investment Bank as the financial institution for borrowing and lending, a similar

institutional arrangement should also be made as functional agencies to facilitate the integration process:

1. The Joint Meeting of the Administrative Heads (regional decision-making body);

2. The Bureau for Coordinating and Programming (regional executive agency); this agency, directly responsible to State Council, is also the "motor" of the economic zone. Its tasks are:
   - to make to the Joint Meeting of Administrative Heads proposals likely to stimulate economic integration;
   - to manage the daily operation of the economic zone;
   - to act as an intermediary between the central government and the participants of the economic zone.

3. The Regional Investment Bank (financial infrastructure of the zone).

The function of the "Bureau for Coordinating and Programming" should be highlighted here. It is important that the personnel of the Bureau act only in the interests of the zone. They should be independent, theoretically at least, of the influence from the authority of individual provinces. The chairman of the bureau could be appointed by central government, but the personnel of the Bureau, who could be called co-ordinators, should be persons from the individual participating provinces or cities to ensure that the interests of the zone as a whole are represented. On the other hand, the personnel of the Bureau should have individual responsibility for particular fields. Like the Commission in the EC, the Bureau should also act both as an initiator of proposals and as the exponent of the zone's interests.

Under the present administrative system in China, the rural areas are subordinate to the central cities with respect to administrative management. The Joint Meeting of the Administrative Heads should consist of "heads" of the participating provinces or cities.

Under the leadership of the central government, the Joint Meeting should therefore have some decision-making power at regional level on matters concerning the zone just as the Council of the EC. Each individual

head of the participating province or city could act in rotation as chairman for a period of time. Unlike the Council of the EC, there would be no need to have the Committee of Permanent Representatives.

The experience of institutional arrangements for the EC is of particular relevance to China. This is because the arrangements are concerned with the co-ordination of the interests of the individual economy and that of the whole. The most sensitive part here is the decision-making procedure. Again the key principle would be to "ensure that decisions are supported by a wide spectrum of opinion", and "to avoid the bigger ignoring the smaller, or the smaller holding up the whole".

One major difference between the situation in Europe and the situation in China is that China has a unitary central government which has final decision-making power. If there is any conflict of opinion, the central government will have the last say. However, discussion in depth at regional level is necessary and intervention should remain as little as possible otherwise the zone would only be a zone "on paper" where everything was decided by central government. This is obviously not the point for establishing economic zones. Again it is here that the economic zone is different from the Economic Cooperative Areas, because economic zone is intended to use "economic means" and the "economic lever" to promote economic development. For integration to progress, the more voluntarily the decision is made and accepted, the more successful it will be and the longer the integration scheme will last. The administrative directive of the central government should therefore be the last resort.

The experience of European economic integration also tells us that economic interdependence as a result of economic integration makes financial integration inevitable. As a matter of fact, financial integration is a catalyst to economic integration and further economic integration requires a higher level of financial integration. Therefore, for regional integration to take place in China, there would have to be some financial co-operation in order to foster economic links. In this sense a regional bank is desirable. However, the regional bank is not easy to take shape. In the transition period, a Regional Investment Bank should be established for regional economic integration. This is because not all the projects for the economic zone can be financed by the central government and, since some projects concern with the benefits of the economic zone as a whole (for example, building a highway to connect two ports - Shanghai and Ningbo) rather than those of individual economies, it is only natural to find that none of these provinces (cities) concerned is willing to shoulder the entire financial burden.

Constitutional Arrangements

"The Treaty of Rome" is the well-known constitution for the EC integration. Regional economic integration in China is, of course, under the supervision of the central government and economic zones are in some sense economic subdivisions within a sovereign country. Is there still any need for some kind of "constitution"? The answer is "yes". Some fundamental norms for economic activities within the economic zone are obviously necessary.There are not any "treaties" for regional integration in China, the more so as the economic zones are still at an experimental stage. Instead, there should be some documents to state explicitly the objectives and measures to be taken for the economic zones. In this regard, the case of the Shanghai Economic Zone is quite interesting. In June 1986, the Seminar for Theoretical Issues in the Shanghai Economic Zone discussed and agreed in principle "the Preliminary Outline for the Development of the Shanghai Economic Zone", and there are many similarities between the "Treaty of Rome" and the "Outline":

Like "The Treaty of Rome", the "Outline" spelled out the main objective of the establishment of the Zone: to reinforce the multifunctionality of the cities as centres in order to facilitate "horizontal links" and gradually integrate the whole zone. The ultimate purpose is to enhance productive forces by improving efficiency.

Like the "Treaty of Rome", the "Outline" pointed out the potential spheres for co-operation in the Shanghai Economic Zone: foreign trade, the energy industry, transportation, new industries, river-harnessing etc.

Like the "Treaty of Rome", the "Outline" also mentioned the institutional arrangement for the Shanghai Economic Zone: the Joint Meeting of the Administrative Heads, the Planning Office, the Investment Bank of the Zone, the advisory Committee etc.

Like the "Treaty of Rome", the "Outline" is more or less of a preliminary nature because it does not have any compulsory force. The "Outline" has once more confirmed the characteristics of the Shanghai Economic Zone - it is an open, multilevel and net-like economic zone. It has also emphasized that for the Zone as a whole, technology is the most prominent factor for cooperation.

It seems that in the "Outline" one important point has been neglected - competition as a dynamic effect to enhance efficiency. The "Outline" emphasized coordination more than competition, because "competition" to enhance efficiency was not mentioned explicitly.

Apparently, the designers of the Shanghai Economic Zone have

thought of the EC economic co-operation model as a reference.[61]

7.4 The Principles of Economic Integration in China

This section is related to the interesting questions: do the principles of EC integration apply only to the European Community, or do they read across to the integration in China as well? What policy recommendations can we get to apply these principles?

Spiral Progress

As the economic integration in China confronts similarly the difficult task of serving the interests of individual localities and those of the whole region, integration can not be realized at once. "Step by step" has to be the first principle.

In China the case of the Shanghai Economic Zone - the first economic zone in China - may serve as a first step for regional economic integration. As the Shanghai Economic Zone is more of an experimental nature, the achievements and problems of the Shanghai Economic Zone should be examined with discretion before more economic zones are established. This is "spiral progress" at the national level.

The principle of spiral progress can also be applied at the regional (economic zone) level. There could be integration first in the sphere of cooperative production, to better utilize existing production facilities. After that progress could be expected in exchange of the products, namely, trade within the region. Then the movement of funds and labour should be encouraged to facilitate the co-operative production and regional trade. In the Shanghai Economic Zone, there has been sectoral integration in the sewing machine industry, bicycle industry etc. China's regional integration may begin with sectoral integration where the advantages of economies of scale and division of labour are more obvious and where the willingness to integrate is stronger. This is "spiral progres at the "zone" level.

The principle of spiral progress is also applicable to integration in each sector. Let us take the integration of the banking sector as an example.

For the purpose of coordination in financial matters, a regional investment bank should be established in one of the centres of the economic zone. Ultimately it may be transformed into something like a regional bank. Such a regional financial authority, however, cannot stand by itself overnight. It has to grow step by step.

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[61].The former Primer Zhao Zi-yang has reportedly said that the Shanghai Economic Zone should at least be an organization like the EC.

The first step could be the establishment of a Council of chair persons who come from different provincial branch banks in the economic zone. They could become responsible for the trans-provincial banking activities within the zone. At the initial stage, the Council could also arrange the exchange of information, which was what had happened in the Shanghai Economic Zone. In addition the Council can arrange research activities. Finally the Council could help to establish the Regional Investment Bank to finance regional projects. The Regional Investment Bank would then expand its business and become involved in trans-provincial transaction settlements and in distributing funds from central authority. Gradually it could evolve into a Regional Bank which would be the financial authority of the zone. This is "spiral progress" at the sector level.

With respect to the mobility of labour, a more practical approach should first begin with the mobility of specialists and skilled labour in order to avoid cities being overcrowded. One article pointed out that the mobility of people could be realized according to the administrative level: people in big cities could move to other big cities and people in medium-size cities could move to other medium-size cities etc. This is a good suggestion to reduce the possible negative effects of integration[62] because in this way economic efficiency can be improved while urbanization remains at a manageable level.

Joint Responsibility

The principle of joint responsibility is meant to guarantee a just and equal distribution of the benefits and costs of integration, so that prosperity for the integrated region as a whole will be achieved. This is because equity is important for the integration to progress smoothly.

In the economic zones in China, some compensation mechanism, if not a regional policy, will be inevitable in order to facilitate the integration process. Some regional arrangement is therefore important in building up the infrastructure and in energy distribution. Enhanced competition in the economic zone could cause marginal enterprises to suffer if not disappear. For such enterprises, great care should be exercised when abolishing subsidies to ensure that integration will not be a sudden disaster to them -

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[62]. Details of the suggestions can be found in Shen Pai-xin's article:Research Essays on the Shanghai Economic Zone p.72.

this is "parachute effect",[63] which means that while competition is encouraged, the weakest should be taken care of and aid should be withdrawn only gradually.

For joint responsibility, it would be necessary to establish some "regional funds" or to pool some of the funds which were previously under the control of individual provinces, because this would not only enhance willingness to integrate but also stabilize the compensation measures to ease the structural adjustment due to economic integration. The Regional Investment Bank as proposed could assume the responsibility of managing the "regional funds". Some special funds, as in the case of the EC, could serve specific aims - the Energy Fund could help to develop the energy sector of the zone, the Development Fund could improve transportation and support schemes for the modernization and conversion of enterprises, while the Social Fund may help solve the regional re-structuring problem etc. The establishment of these funds would reinforce the interdependence of the individual provincial economies and enable them to stick to the integration scheme.

The principle of joint responsibility can also be reflected in the coordination for relations among provinces.In the case of the Shanghai Economic Zone the developed part and the underdeveloped part are easily distinguished. Shanghai and Jiangsu, Zhejiang provinces which are located in the coastal region, are the "core" part of the zone; while Jiangxi, Fujian and Anhui provinces, located in the central region, are the peripheral and predominately agricultural areas. It is to be expected that there is a lack of funds, skilled labour, technology in Jiangxi, Fujian and Anhui province. On the other hand, there is shortage of energy in the industrialized core area of the Zone. The patterns of specialization induced by the regional integration scheme should take into consideration the principle of joint responsibility to avoid by all means further depressing the underdeveloped area of the Zone.

Flexibility

The integration scheme should be flexible to encourage the participants - this is also true of China's regional integration. The principle of flexibility has in fact been reflected in the case of the Shanghai Economic Zone.

We mentioned that earlier efforts for subdivision of the nation in the 1950s and later failed, because the subdivision turned out to create an

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[63]. Professor H. W. Lambers in Erasmus University emphasized this in his interview with the author in April, 1987.

additional administrative level which only increased the administrative expenses and delayed the implementation of decisions. Bearing this in mind, the designers of the Shanghai Economic Zone tried to avoid fixing the model of the Zone, leaving freer choice to deal with future problems. The "Outline" of the Shanghai Economic Zone just sketched out the development of the Zone in principle instead of providing a detailed programme for integration so that there is room for future adjustment. It spelled out the objective but left the means of achieving the objectives flexible. As a matter of fact the central authorities have as yet set no specific rules, apparently content to allow the economic zone to find its own path of development through trial and error.

The principle of flexibility can be brought into practice in many ways. The membership of an economic zone for example should be flexible. Since there is still uncertainty about the ideal "boundary" of economic zones, it would be better to integrate some provinces to see if the integration scheme serves them well.

Flexibility is also necessary in the forms of economic integration. For the members of an economic zone, various forms of economic co-operation both inside and outside the Zone should be allowed. Individual cities of the Zone could have co-operative arrangements to exchange commodities with cities outside the Zone. The economic zone would therefore not merely be an exclusive regional bloc. Within the Zone, the principle of flexibility is also useful. Economic performance varies from province to province and so do historic relationships. The original ten cities in Jiangsu, Zhejiang and Shanghai have, in general, closer economic relations. It is advisable therefore to have flexible arrangement for integration. The original two provinces (Jiangsu and Zhejiang) plus Shanghai could be more closely integrated than other provinces. Two-speed integration, with the original two provinces plus Shanghai as the core is a possibility, provided that regional disparity is maintained at a reasonable level to keep all the provinces of the Zone in the integration scheme. This would be similar to the Benelux countries: they have a closer relationship and have moved further towards integration, but they are still members of the EC Community.

The establishment of economic zones is to encourage economic cooperation by promoting the division of labour and competition. It therefore has a long-term target. In that sense the boundary of an economic zone should be flexible. Periodic adjustment of the boundaries of economic zones is unavoidable. As some scholars have suggested, "In different periods, there can be different boundaries for these economic zones. This is because with economic development, there are structural changes in

industries which could result in different spatial relations for the individual provinces. These changes can hardly be foreseen. If the boundaries for economic zones can last for five to twenty years, some minor adjustment every five years is possible."[64]

[64]. See Liang et.al. p.103. The Yangtse River Delta Economic Zone has taken the place of the Shanghai Economic Zone and excludes Fujian province.

PART 3

THE EMPIRICAL ANALYSIS OF ECONOMIC INTEGRATION

- THE SHANGHAI ECONOMIC ZONE AND OTHER PARTS OF CHINA (1982-1988)

CHAPTER 8
THE SCHEME OF THE EMPIRICAL TEST - METHODOLOGICAL FRAMEWORK

The hypothesis throughout the present study has been that, until recently, China has not been integrated economically and this has led to economic losses in terms of the division of labour, economies of scale and competitiveness.

The objective of this part, which is the important part of the study, is to test the hypothesis by examining the reality.

8.1 Research Questions

As a matter of fact, foreign scholarly interest in issue of economic integration in China can be traced back to early 1972 when Audrey Donnithorne (1972,p.605) described the Chinese economy particularly at the period after the "Cultural Revolution" as "cellular," "composed of a myriad of small discrete units." In some sense the Chinese economy could well be conceptualized as a being collection of provincial economies that are highly independent in terms of economic activity.[65]

Among the China specialists and those economists who are interested in China's development and who have made efforts to identify the cellular nature of the Chinese economy, Lardy finds in the agriculture sector decreasing regional specialization and interregional trade relative to output and increasing allocational inefficiency (1983,pp.48-88). Thomas P.Lyons (1985,pp.134-139), as was mentioned in the Introduction, finds that in the industry sector transportation of important fuels and materials did not keep pace with production. He has investigated Audrey Donnithorne's proposition. The focus of his research was on the Maoist period which was defined as the period from the beginning of the Great Leap Forward (late

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[65]. Nicholas Lardy (1975, p.95), however, argued that economic development in China since the decentralization in 1958 has not been characterized by a strong pattern of regional self-sufficiency. This was the so called Donnithorne-Lardy debate. This debate has led to some further research which suggests that at least in some spheres of economic activity, Donnithorne's fragmentation hypothesis may be more consistent with the evidence. See Thomas P. Lyons' article "Explaining Economic Fragmentation in China: A Systems Approach" 1986, p.209.

1957) until the Third Plenary Session of the Eleventh Central Committee (December 1978) when economic reforms started. He reached the conclusion that, during the Maoist period, local and provincial authorities responded favourably to Mao's repeated calls for self-reliance. After analyzing China's planning organization and its procedures, he showed that the structure of China's planning system has not facilitated cooperation among localities. This explains the observed pattern of a tendency toward fragmentation. The cellular nature of the Chinese economy is actually due to the tendency towards provincial or even lower level isolationism, encouraged by the principle of "self-sufficiency". Because of the promotion of "independent industrial systems" at the provincial or lower level, provincial and local plants have been protected by barriers to trade raised by the provincial and/or local governments which we have discussed in Part 2.

This integration issue of China has also drawn the attention of World Bank economists. In the report of a mission sent to China by the World Bank (1985) - "China, Long-Term Development Issues and Options", a special chapter has been devoted to "Spatial Issues", where the following conclusion was mentioned:

> " ... there is an urgent need for measures to reduce the present conflict between what seems rational for a particular locality and what is rational for the whole economy" (World Bank 1985,p.78).

While there is considerable interest in the topic, empirical efforts in this regard are still relatively few. A lot of foreign scholarly literature has been devoted to the economic reforms in general whereas very few have researched the unique characteristics of the Chinese economy:local protectionism and autarky. Thomas P.Lyons' research is important along this line. His conclusion, however, is confined to the Maoist period. People will ask: what about economic integration in the post-Mao period which is the period for market-oriented economic reforms?

The present part will systematically investigate the integration issue in the post-Mao period with focus on the Shanghai Economic Zone. It intends to answer such questions as the following: has the cellular nature of the Chinese economy changed in the post-Mao period? What was, or is, the situation of factor and commodity mobility in China before and after the economic reforms? How can we understand the situation of local protectionism and autarky when the self-sufficiency policy is not encour-

aged at all? What is the cost of local protectionism which fragments the national market? In sum, the present part will re-examine the integration issue with particular emphasis on the period from 1982 onwards, when the Shanghai Economic Zone was established.

One difference, among others, between this empirical part and the study of Lyons' is that, instead of examining China as a whole, it will first investigate the Shanghai Economic Zone and then relate the Shanghai Economic Zone to China as a whole.

8.2 Research Limitations: the Method and the Data

Once we begin to answer the questions mentioned above, two issues will come up for our consideration: the research method and the data.

According to Peter Robson,[66] there are several approaches to estimating the effects of integration. One approach is to estimate them by relying on a specified analytical model, the parameters of which are estimated from the data available using standard statistical techniques. A second approach estimates the effects of integration indirectly by means of residual imputation procedures. "Residual models have the characteristics that they seek to quantify, by reference to a variety of explanatory factors, the development that the economies in question could be expected to have experienced in the absence of integration. The impact of integration is then taken to be the unexplained residual that is obtained by subtracting the projections so arrived at for the past period from the actually recorded magnitudes for the same period" (p.238). This method is weak because all deviations of the model are presumed to be attributable to integration while normally such deviations would also occur even without integration. A third approach, less formal and less aggregative in practice, is the survey method which rests on surveys of particular sectors and industries and interviews with those involved in the integration process. Given the fact that the data available for integration in China are sometimes fragmentary and less homogeneous, a specified analytical model or a residual model can hardly be used for this study. Hence the present research relies heavily on the survey method due to China's particular situation as well as to the specific case of integration in the Shanghai Economic Zone.

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[66]. For the issue of integration, Peter Robson has a detailed discussion in his book The Economics of International Integration, 3rd ed. 1987 pp.233-259. The approach he used in the book is in the international setting. But a careful reading of the book will show that it is relevant as long as integration is understood as being economic co-operation, commodity trade and specialization within a national context.

In fact, the present part of study combines two complementary types of empirical analysis: qualitative assessment and quantitative description. Chapter 9 examines the factor (commodity) mobility situation by both providing an interpretation of some statistical data and providing some qualitative background. Chapter 10 investigates the duplication pattern of industrial activities and the cost of it. Chapter 11 offers cases to show integration progress in the Shanghai Economic Zone: cases in the bicycle industry, textile industry, machinery industry and the financial sector. Qualitative assessment and quantitative description have been brought together to reach some systematic conclusions.

As far as the issue of data is concerned, there are some basic considerations facing any researcher of China studies: China's national income is measured as the material product system for five broad sectors (agriculture, industry, construction, transport and commerce) and there are two expenditure categories (consumption and accumulation); the Chinese industrial sectoral classification is different from the UN International Standard Industrial Classification etc. Moreover, it is virtually impossible to get the data about detailed production costs, and detailed statistics of industrial production are available only in terms of gross output value. On the other hand, provincial data in general is available and relatively reliable in China. Anecdotal data, though scattered, is relatively easier to get. Bearing these considerations in mind we have designed our empirical test.

Table 8.1 Indicators of Economic Integration
- their availability and suitability for a study of integration in China.

Indicators	Availability	Suitability
a. price	no	no
b. price index	yes	no
c. domestic trade flows	no	yes
d. cost of production	no	no
e. migration of people	yes	yes
f. interest rate change	yes	no
g. similarity of industrial structure	yes	yes

From the table we can find that some indicators for the integration issue have been either difficult to get or have not been relevant in the case of China. Moreover, with respect to data, there are several limitations worth noticing. These limitations, which are to be discussed later, are partly due to the special nature of the Chinese economy and partly due to the availability and suitability of the data for this study. Apart from that, an important point in testing economic integration in China (as well as in other countries) is that the concept of economic integration cannot be reduced to any single dimension. Any methodology for analyzing economic integration must, in fact, take into account several relevant elements. We are now to discuss these indicators individually.

Obviously factor mobility is an important indicator in testing the integration hypothesis about China. We can not say that an economy is integrated if mobility of production factors is retarded. In the case of China, however, production factors may be readily moved from one province to another according to administrative order, not to economic principle. Mobility of production factors, if it exists, is centrally controlled. Decisions are based more on administrative and political considerations rather than on economic criteria.

Trade flow is another indicator for testing the hypothesis about integration in China and for examining the interdependence of the economies involved. To some extent an impression might be gained about imports and exports per sector per province from the provincial output minus provincial consumption per sector, though these data are not readily available. But there are hardly published data for the direction of commodity flows, or the data for inter-provincial trade flows, which makes the case different from the case of commodity flows between individual countries which can largely be found in international trade statistics. Therefore trade creation and trade diversion - the effects of integration - cannot be observed directly within China. One can easily show to which countries and in what volume the exports of Japan flow. But reliable and accurate data showing the commodity flows from Shanghai is hardly available.

If we look at "price" as an indicator for economic integration, it is even more complicated. In general, price is anyway the most essential indicator for economic integration as far as commodity mobility is concerned. The benefits of a Common Market of Europe in 1992 are expressed in the convergence of some prices as a result of market integration. This is the same for wages - the price of labour, and for interest rates - the price of capital. The convergence of relative prices across economic units usually demonstrates a process of integration. If

there is a convergence of, say, bicycle prices among provinces due to the mobility of bicycle products, it may imply that there is a tendency towards integration in the bicycle market. Similarly, if there is mobility of labour in the labour market, the wage level, generally speaking, tends to be equalized.

However, problems emerge due to the specific price structure in China. First of all, the wages and interest rate are basically set by either the central or the local government. Recently there has been some freedom for local government or individual enterprises to make "adjustments". The "adjustment" for wage is often reflected in a "bonus" or other forms of welfare, details of which are not available for systematic research. Secondly, the price data for commodities is subject, in varying degrees, to certain inherent problems: the prices of raw materials, for example, may be either "official prices", which are set by the government, or "negotiable prices", which are to some extent based on supply and demand but government may intervene.[67]

Whatever these problems are, one basic difficulty is that reliable and precise data concerning prices for individual commodities is not available. What is available in the official statistics is the data of the price index, i.e. the indication of general price level.

The significance of any index data lies in the fact that it demonstrates the direction of change as well as the volume of change. But suppose there is convergence or divergence of the price index during the period between 1982 and 1987, can we make the assumption, if not conclusion, that during the period between 1982 and 1987, China is, or is not significantly fragmented? The direct answer will be "no". Because statistical data of this sort are not so easy to interpret. First, the Chinese economy is more complicated than it seems at first glance. To say that the Chinese economy is a centrally planned economy is sometimes oversimplified or even misleading. As a matter of fact, the whole Chinese economy can be divided into planned and unplanned subeconomies. This division "not only simplifies the planning problem but, in some respects, facilitates plan fulfilment"

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[67]. The exchange rate, the price for foreign currency, may serve as an example. The government has official rates for foreign currencies. But there are official "trading centres" to deal with foreign exchange transactions. At these "trading centres", the negotiable rate is set within a range. Not everyone can get access to these "trading centres". There are of course "black markets" where foreign exchange transactions take place "illegally".

(Lyons,1988).[68] Secondly, given the fact that the Chinese economy can be divided into planned and unplanned subeconomies the commodity mobility has a different scenario. The flow of some commodities such as lumber, finished steel, motor vehicles and nonferrous metals is basically controlled by the central authorities while that of others such as light industrial products is not.[69] Thirdly, as we know, there has been an expanding private sector ever since the economic reforms began. The influence of the private sector on the general price level is not very clear. Of course China has not given - and in the near future will not be likely to give - total freedom to price for responsiveness to supply and demand.

In fact, the price system in China now is a multi-price system: the state sets the prices of those goods that are essential to the economy or to the people, and, apart from those of products under state unified purchase, potential buyers and sellers can negotiate prices. Sometimes the state either sets up a ceiling below which prices are allowed to fluctuate or let prices float within certain limits. The price levels vary with the government's standard price as the lowest and the market price as the highest. The "Temporary Provisions Regarding the Further Expansion of Self-Management of State-Run Industrial Enterprises", issued by the State Council on May 10, 1984, permitted the independent sale of a portion of the production goods produced by state-run enterprises, which meant that the already existing multiple price system was formally recognized. Up to 20 per cent variations in prices were allowed for "excess production" of finished steel, pig iron, copper, aluminum, lead, zinc, tin, coal, cement, sulfuric acid, caustic soda, refined soda rubber etc., and for 2 per cent of the planned

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[68]. Thomas P.Lyons has further explained the division of the economy: From the planners' point of view, the unplanned subeconomies constitute a reserve pool of materials and labour which can be requisitioned to prevent imbalances from reverberating through the planned economy and threatening the attainment of targets. On the other hand, the unplanned subeconomy provides a residual claimant, ready to employ any excess supplies vented to it (p.115).

[69]. The output shares allocated by central planners belong to "category 1" (output subject to central allocation). The shares may fluctuate from year to year. In the 1950s, the number of materials allocated by the central authorities was 115 in 1953 and increased to 532 in 1957. Things have changed since the economic reform. In 1979, for example, the number was 256. The central share percentage for commodities also changes from time to time. In 1978, the central for commodities was as follows: lumber 81%, finished steel 80%, motor vehicles 75%, chemicals 75%, nonferrous metals 64%, electric power 55%, coal 54%, cement 36%, light industry products 0%.

production of finished steel. In 1985 the government removed the 20 per cent restriction. In 1989, the government extended this multiple price system to include such goods as primary and secondary energy, petroleum products, coke, lumber, metal materials, sheet glass and mineral products. Hence the price system is quite complicated. Take cement as an example. The portion of cement distributed by the central government has changed gradually. In 1982, it accounted for no more than 1/4 of the total production volume. At the end of 1985, however, the ratio of the volume of cement sold under the three prices was 1:1.5:2.5. At the end of September 1986, the ratio had shifted to 1:1.24:1.6.

This brief description of the multi-price system suggests that in the context of China, price cannot be used as an indication of integration and the general price index is not so precise as an indicator of market integration. Therefore, some other data has been selected to provide further analysis of the integration issue. To the present study, the most relevant ones are as follows:

- mobility of production factors;
- commodity mobility and trade;
- specialization and co-operation.

The most important data is those related to mobility of factors and the duplication of industrial systems.

As can be understood, mobility of production factors and goods is an important dimension of integration. On the other hand, cooperation, specialization and exchange are also dimensions of economic integration. We have defined "integration" specifically at the very beginning, "the formation of some cooperation arrangement on a sufficient scale to ensure major economic and welfare objectives" is an important aspect of integration. In the case of China, therefore, an important indicator for the lack of economic integration is the duplication of production at the provincial or lower level. Chapter 9 and Chapter 10 will follow this line to examine the mobility of production factors and commodities, as well as the duplication of industrial systems in the Chinese economy.

8.3 The Scheme and its Guiding Principles

Given the fact that there are problems to any attempt at studying the integration issue in China, the present empirical test emphasizes the multiplicity of tests and, correspondingly, of methods in order to minimize the potential faulty inferences and misinterpretations.

In general, the test can be divided into two parts: first, a qualitative

assessment of mobility of production factors and commodities as a basic indicator of integration and second, a quantitative description of duplication of industrial activities in different provinces as an indirect indicator. The reason for doing so is that some anecdotal data and statistical data for mobility of production factors and commodities are available. On the other hand, provincial data on industrial output is available to examine the duplication of industrial systems. In this way quantitative description is combined with qualitative assessment. Different dimensions of integration can thus be examined and cross-checked.

In order to investigate the progress of integration in the Shanghai Economic Zone, some cases will be examined. The emphasis is on the cause-effect analysis to show the general implications rather than quantifying the concrete benefits. This is because economic integration in China is only at an initial and experimental stage. Investigating the benefits for integration can only be done by looking at specific cases. Again, multiple cases are investigated in order to check whether these cases display similar results as predicted by the integration theory. In the whole empirical part, anecdotal evidence will be found extensively in the text. Anecdotal evidence is sometimes imprecise, and the representativeness of the cases cited cannot be easily established. Nevertheless, if used carefully and unbiasedly, evidence of this sort doesconstitute an important resource in the case of China. Moreover, attention has been paid to the use of multiple-sources of evidence: evidence from Chinese sources, from Japanese sources and from those of the World Bank.

It should be noted that data for the study of social sciences in China is notoriously difficult to obtain and to check. The researcher has to piece together painstakingly the little data available to reach a conclusion. No public data bank exists in China similar to those to which Western researchers are accustomed. Therefore, with the limited and fragmentary data available, efforts have been made to find the converging evidence with regard to the research questions and to see whether one can check the conclusion that integration is necessary to reap economic benefits.

In the present test it is not my purpose - and furthermore not possible - to analyze the extent of economic integration in the whole of China as such. Instead, my interest is in studying the general characteristics of economic integration covered by the concept "the Shanghai Economic Zone". The time period for the test is between 1982, when the Shanghai Economic Zone was established, and 1989, when some political changes occurred. Because the Shanghai Economic Zone is the focus for our discussion throughout this research, the test of the integration hypothesis is, in most cases, set in the regional (zone) perspective. The provinces

concerned in the Shanghai Economic Zone are therefore to be examined. Not only is the data at the Zone level to be used but also that at the municipal and even county level has been selected wherever possible. In the last section of Chapter 10 the relevance of the conclusion from the Shanghai Economic Zone to China as a whole will be discussed. This will make the conclusion from our investigation in the Shanghai Economic Zone more convincing and will give it a wider application.

CHAPTER 9
LACK OF ECONOMIC INTEGRATION: A GENERAL SURVEY

This chapter will give some qualitative analysis on the mobility of production factors and the mobility of commodities in China.

As we have discussed in Chapter 1, the mobility of production factors and commodities is an important dimension of the integration issue. Any survey of economic integration can therefore hardly ignore this aspect. In the Chinese economy, which has a strong regional character, regional governments allocate substantial production resources. Mobility of production factors and commodities therefore has a regional character.

The survey presented here covers labour mobility, commodity mobility and, to some extent, capital mobility. The technique used in this chapter is that, while some statistical data is being examined, some institutional background related to the statistical data will be provided in parallel. By covering the mobility of labour, capital and commodities and by assessing the changes in terms of factor mobility after economic reforms, a wide net is knit both in the extent of the data examined and in the depth of the understanding of the data.

9.1 Labour Mobility

For a long time there had been little labour mobility in China. This is evidenced by two institutional facts: first, in China the place of residence has been administratively controlled and second, there has been an unified employment assignment system.

Under the residence-permit system for cities and towns, citizens are required to register with the local police station ("peicushu" in Chinese) and are not allowed to change their place of residence without prior permission. This residence-permit system in cities and towns has been reinforced by the rationing system in China: basic consumer goods (grain, sugar, meat etc.) have been rationed in urban areas since 1953 and an urban ration card with which one can buy the basic consumer goods is available only to permitted urban residents. Rationing has therefore been used in China not only to ensure the provision of basic consumption goods at a low price but also to regulate mobility from rural to urban areas. Food rationing is now regarded more as an emergency measure than a permanent arrangement. Migration, however, still remains subject to strict control and is likely to remain so.

Table 9.1, which was made public only recently, shows the statistical data for migration in Shanghai:

Table 9.1 Net Population Immigration to Shanghai Municipality

Year	Immigration	% of total production
1977	7,900	0.071
1978	67,000	0.544
1979	264,900	2.341
1980	76,700	0.673
1981	44,100	0.382
1982	38,000	0.324
1983	36,000	0.303
1984	21,700	0.181
1985	53,000	0.438
1986	62,700	0.512
1987	67,700	0.546
1988	50,900	0.416

Source: Based on the Shanghai Statistical Year Book p.119.

The total population of Shanghai is 12 million (1988) but the percentage of immigration is around 0.5 %, with the exception of 1979. The reason for greater immigration in 1979 is that in that year many people who had been forced to leave Shanghai during the Cultural Revolution were allowed to return. This kind of mobility is really exceptional. The cause of it was a political rather than an economic one.

Shanghai is by no means unique in terms of population migration. If we look further at the other provinces in the Shanghai Economic Zone, we will find that the immigration percentage (immigration as % of total population) is even lower.

The figures in Table 9.2 indicate that, as in the case of Shanghai, migration into the other provinces has been maintained at a very low level - lower than that of Shanghai: the highest migration percentage in each province is 0.265% in Jiangsu; 0.209% in Anhui; 0.100% in Fujian;

0.486% in Jiangxi and 0.263% in Zhejiang. Apparently, migration, where it occurs, is dominated by the administrative hierarchy: mobility is most possible or relatively easier within cities or towns than between cities and towns. The residence-permit system in towns and cities, while successful in preventing migration to the larger cities, retards the mobility of labor necessary for economic efficiency.

Table 9.2 Immigration in the Five Provinces in the Shanghai Economic Zone (% of total population)

Year	Jiangsu	Anhui	Zhejiang	Fujian	Jiangxi
1982	0.265	0.202	0.127	0.037	0.019
1983	0.155	0.082	0.101	0.058	0.179
1984	0.168	0.164	0.263	0.028	0.140
1985	0.179	0.198	0.263	0.074	0.314
1986	0.162	0.209	0.128	0.052	0.456
1987	0.223	0.207	0.165	0.100	0.486

Source: China Population Statistics.

The "unified employment assignment" system, on the other hand, retards the mobility of labour from one enterprise to the other. Until recently all young people were administratively assigned to particular jobs. For a long time such an assignment was for life: workers could not move from one enterprise to another. Refusal to obey allocation to one's first job assignment could be interpreted as "disloyalty to the nation".

Such strict control on labour mobility is quite unique even among "socialist countries". In the USSR, for example, there existed a relatively free urban labour market although "moving to closed cities such as Moscow is difficult and not to work in the state or collective sector is in general illegal"(Michael Ellman, 1989, p.69).

Both the residence-permit system and the unified employment assignment system are based on the administrative hierarchy with the provincial (municipal) government as the core. Labour mobility has been controlled by the relevant administrative authorities. Sometimes labour mobility is difficult even within the administrative "cells" - provinces, cities, counties and towns.

There have been some changes since the economic reform. Measures

have been taken to allow some mobility for "skilled labour" in order to utilize their "skills".[70] There have been discussions on the necessity for a "labour market".[71] One article in the People's Daily "On a Unified Market" mentioned that mobility of production factors including labour is a requirement of economic development. This was a taboo in the past because, according to classic Marxism, the existence of a labour market is a defining characteristic of capitalism.

A report entitled "Strategic Issues in Human Resource Planning in the People's Republic of China", which was sponsored by ILO-UNDP, mentioned the "functioning of the labour market":

> "For economic efficiency in enterprises, the staff must be reduced and skills must be allowed to be transferred. The labour market provides such people with the space and mechanism to bring about this transfer."[72]

Article 23 of "the Guidelines for the Development of the Shanghai Economic Zone", prepared in 1985, proposed establishing the "exchange centre" and "training centre" for expertise in the Zone. According to the Article, policies should be adopted "to encourage the rational movement of expertise, to make good use of the elite including the old experts, scholars and skilled labour". For that purpose, the residence-permit system should be modified: some of the people could have a double permit to live in two places (for example, Shanghai and Suzhou); and more should be paid to those who have to or wish to go to the underdeveloped part of the Zone (mountain area etc.).[73] In the Shanghai Economic Zone there are some

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[70]. Measures taken include the establishment of centres for personnel exchange where graduates of universities or other persons trained in one field or another may apply for changing job. As a go-between, the centre will contact the relevant companies, factories and universities. Once in a while there have been some labour "exhibits" where the persons who want to employ and persons who want to be employed may meet and negotiate with each other.

[71]. See People's Daily September 16 1988.

[72]. Working papers of UNDP & IDO, International Labour Organization Geneva, 1990. p.6. See footnote 5.

[73]. See The Development Guidelines of the Shanghai Economic Zone, third edition, p.6 Article 23.

official organizations now responsible for professionals, like the "talent interflow centres", "exchange centres" and "(personnel) trading centres". In some large and medium-size cities such as Shenyang and Chengdu, "job recommendation offices" which function as bridges between employers and employees have been set up. Moreover, temporary migrants have been more or less accepted. Rural labourers are now permitted to "leave the land but not the countryside". They can take up work if their families can supply them with grain, because the permission of private business has meant that people can find food and clothing without recourse to the state rationing system, and this expansion of collective and private sectors makes it feasible to live "illegally" in cities and towns. A survey of Shanghai in 1985 indicated that in Shanghai around 1.6 million people were such "temporary" residents.

There are two considerations that should be borne in mind before we assess these developments. The first is that these changes are still marginal. According to the project by the United Nations Development Programme (UNDP) and International Labour Organization Asian Employment Programme, in the "talent interflow centre" in Beijing, there were about 7200 people in specific fields registered from 1984 to August 1987 and about 2000 of them have realized their "mobility".[74] While the level of personnel mobility is low, it is largely restricted to inter-province level and is taking place within the provincial boundary. As of today, the function of these "centres" is to encourage the mobility of labour within provinces rather than between provinces and, at present, the mobility of labour is more or less organized: mobility is under the direction of the state plan and is led or controlled by government departments. The central government has not taken new policy measures for free migration and the residence-permit system remains in force. Some regulations have been issued, but they seem to rectify what has already taken place.

The second consideration is that, among changes after the economic reforms, temporary migrants are spatially concentrated in rural areas near the larger and more prosperous cities such as in Shanghai as we mentioned earlier. Guangzhou is also "famous" for temporary residents who intend to find jobs in the city. There are also cases in Beijing of free interaction between employers and employees for householdhelps. Among 50,000

[74].These figures are provided by International Labour Organization Working Papers. See Strategic Issues in Human Resource Planning in the People's Republic of China April, 1990, UNDP Press, p.6.

househelps 4/5 are employed through free transaction.[75] However, this kind of migration is temporary and does not influence the industrial structure. Moreover, the data available in this regard is very limited.

Understandably, in examining the integration of the labour market, in addition to the numbers of workers moved in the labour market, the change of price for labour (wage) is of interest to us. But as mentioned in our earlier discussion, the wage system in China is such that the data about wages cannot be used to reflect the costs of labour.

As additional evidence, labour productivity, the output value in terms of the local currency Renminbi(RMB) per unit of labour, might be of more relevance to us. The following table shows the overall labour productivity in the six regions (Shanghai + 5 provinces) in the Shanghai Economic Zone.

Table 9.3 Overall Labour Productivity in the Shanghai Economic Zone

Province	1985	1986	1986 as % of 1985
Shanghai	31483	32306	102.61%
Jiangsu	18759	19807	103.17%
Zhejiang	17941	18754	104.53%
Anhui	13980	14147	101.19%
Fujian	13036	13428	103.01%
Jiangxi	10531	10884	103.35%

Source: China's Statistical Yearbook,1987.
Note: RMB: unit of local currency.

While the improvement in labour productivity for the six regions(provinces) is around 3%, apart from Anhui which is 1%, the labour productivity of Shanghai is more than three times than that of Jiangxi.

There are various explanatory factors for this discrepancy: the educational level of the labour force, the investment in the productive capacity as well as the technological level may play their roles respectively. But one factor responsible for it may be the low mobility of the labour force: if the labour force could have moved freely, there would not have

[75].Ibid.

been so large a gap in terms of labour productivity.

In fact, labour mobility is a complicated issue in China. One Chinese economist commented:[76]

> "The risk we run in allowing a marginal flow of the work force lies in the fact that a few people who are lucky enough to move may be rewarded by particularly high compensation, thus creating a strong contrast and social repercussions and amplifying the adverse effects of mobility."

Apart from the general discrepancy in income, the question of the mobility of the urban work force within the urban economy also presents certain specific difficulties. As investigations show, those who have greater mobility in society are either skilled workers and specialists, or unskilled workers of low social status. As for intermediate-level employees who are numerous and have a weak tendency to move, they can only be "forced" into mobility by a mandatory reduction of employment. This can be done only when an integrated labour insurance system has been established. The solution to this problem is to "implement a short-term contract system for hiring new employees in the cities, gradually reduce the number of permanent employees and eventually turn them into contract workers",[77] because the labour contract system thus designed will change the "iron rice-bowl" - life-long employment system, and only then the mobility of the labour force can be a reality. Nevertheless it is by no means an easy job. As Gordon White commented, the difficulty in implementing such a labour contract system is that, apart from "the considerable disagreement among policy makers and their advisers about how to proceed", there is also resistance from the workers, "so long as there is a significant level of urban unemployment and the rewards for non-state employment remain inferior"(Gordon White, 1988, p.7).

9.2 Mobility of Commodities

The role of commodity markets in the Chinese economy was limited in the past, given the nature of a centrally planned economy. But it was by no means nonexistent even in the period before reform. "Some links

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[76]. Hua Sheng et. al. Restructuring the Macroeconomic Base "Chinese Economic Studies" Winter 1988-1989.

[77]. Ibid.

between the different self-contained systems were market or quasi-market transactions. For example, provinces traded products, and centrally planned enterprises bought coal from locally controlled mines"(World Bank II 1988). But the flow of goods in the pre-reform periods was basically controlled by the planning centre. Horizontal relations were very few if not exceptional, although there were several experiments in improving such a system even before the reform of late 1970s.[78]

As of today the goods produced in China have been divided into several categories. Category I products like lumber, finished steel, chemicals etc. are subject to balancing by the State Planning Commission and to allocation by the State Material Supply Bureau. Category II products are under the control of designated industrial ministries. But not all goods in both categories are allocated under central control. Locally controlled enterprises are also producing goods in Category I and Category II. According to the Chinese management system, in most cases either ownership (state, collective and private) or administrative (provincial, municipal etc.) control of an enterprise confers the right to allocate its output. For example, if a watch factory belongs to Jiangsu province, the watches produced in that factory are subject to allocation by Jiangsu province. On the other hand, the products of a central-government-owned steel plant will generally be at the disposal of the state. At least the movement of some Category I and Category II goods is related to the administrative domain, as in the case with Category III goods, which have been under the control of local government.[79] This regional character of the Chinese economy indicates that local governments have control on the production and therefore on the products.

The finding of Christine P.W.Wong's study shows that among 437,200 enterprises, which is an extremely large number compared to socialist economies in Eastern Europe, there are quite a lot which have been controlled by local government. According to Christine Wong, local government controls "nearly half of total industrial output" (Christine

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[78]. In 1963, Jiangsu was divided into 12 small economic zones and the commodity mobility changed. The transportation costs saved were 2.73 million yuan. For details see Contemporary Economic Reform in China chapter 9 p.509.

[79]. In 1980, 46% of coal output, 42% of steel, 36% of non-ferrous metals, 18% of lumber and 71% of cement were subjected to local control. Therefore the Chinese economic system differed markedly from other traditional centrally planned economies even before the reforms. In the Soviet Union, for example, the production of Category I and Category II goods is completely under central control.

P.W. Wong, p.95, 1987). This implies that provincial or lower level local governments will have the incentive and potential for local protectionism.

The local control on enterprises does not necessarily mean that the central government cannot influence local enterprises by means of taxation, raw material allocation, price regulation and so on. But a large share of local control of enterprises will mean that, as far as commodity mobility is concerned, local influence is important. Furthermore, the extent of allocation through the market has expanded significantly since the economic reforms. The number of centrally allocated producer goods fell from 837 in 1980 to 23 in 1985. The reforms in 1984 and 1985 have led to a further substantial increase in direct enterprise sales of their products and the share of output allocated according to plans has been declining correspondingly. These changes were intended to help to improve the vertical mobility model and to enhance economic integration.

Local government control on the enterprises can be seen if we have a look at the hierarchy of enterprises in China. The enterprises in China are divided into two major categories according to the ownership of the enterprises. The distribution of the enterprises in these two categories is presented here:

Table 9.4 The Estimated Distribution of Enterprises by Ownership in China

State	Collective
2500 large enterprises centrally controlled	
30,000 - 40,000 small medium size enterprises locally controlled (provincial or city)	100,000 large and small urban collectives
40,000 - 50,000 locally controlled (county & prefecture)	20,000 - 25,000 (collective) 186,000 (township & villages)

Source: Adapted from Christine P.W. Wong,1987, p.98.

While the intention of central government was to enhance the market allocation of commodities, the reality, however, is that local governments

build up barriers to protect their own market Therefore the market for commodities, in general, has not been an "unimpeded national market", and "there has been a continuing tendency of provinces and localities to 'protect' their own respective enterprises" (World Bank, 1988, p 88)

Central government has become aware of the negative effect of such kind of local protectionism, as was evidenced by numerous central government documents prohibiting such activities and encouraging "horizontal economic relations" The reforms were to be achieved basically "by encouraging the development of independent co-operative and private trading concerns, by allowing enterprises to market a portion of their output directly and by organizing the flow of commodities according to natural marketing systems, bypassing the bureaucratic network of state wholesale stations"(White et al,1988,p 18) But the barriers, especially the administrative barriers, procurement restrictions, market entry restrictions and market-distorting practices etc are still there In Part 2 we have already given a full description of these barriers and compared them with barriers existing in the EC We will soon find, in our analysis of capital mobility in China, that, while some old barriers, particularly sectoral (ministry) barriers, have been dismantled, new ones, especially provincial barriers, have in fact been reinforced by the revenue-sharing scheme, which is going to be discussed in the coming section

9.3 Capital Mobility

Quantitative data concerning capital mobility are hardly available for systematic examination However, some qualitative data do exist which will provide some understanding of capital mobility in China We start with an overview of the money flows in China

The money flow in China is basically vertical the People's Bank serves as a centre for cash, credit and settlements "It is a centre of cash because it is responsible for currency issues, and because all cash held by government organs and state enterprises in excess of the small amounts necessary for current expenditure must be deposited in the People's Bank. It is a centre for credit because indebtedness between units within the state sector is forbidden, so that loans to state units originate from the bank alone... the People's Bank is also a centre of settlements because all payments above a minimum amount within the public sector must be 'settled' through bank account transfers" [80]

Apart from that, the pattern of capital resource flows is through a

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[80] See Money and Banking in the Chinese Mainland For changes after the economic reforms see Byrd Financial Reform in China

vertical fiscal system. Up to 1979 profitable industries, mainly in the coastal regions, subsidized the development of new inland enterprises not through joint venture, direct investment etc., but through the tax/profit system. This implies that the profitable industries handed in their profits(tax) to finance government expenditure, which in turn subsidized the inland enterprises.

As in the other fields, there have been some changes in capital mobility since 1979, and reforms set out to "redefine the process of capital aggregation and circulation, specifically to diversify sources of capital provision and redefine the terms on which capital is allocated" (White,1988, p.10). But the reform measures have a lot of problems and suffer under the rhythm of stop-go financial policy changes: financial decentralization followed by overheating followed by government's attempts to restore controls. On the other hand, the introduction of financial contracting down to county level after 1980 gave the provincial and lower level authorities more control over revenues collected locally, some of which are sufficient to cover expenditure. The main part of the central government's funds now consists of sums transferred from the provinces. A minority of poor and/or strategically important provinces normally receive grants from central government. All revenues at provincial level are divided between the centre and the provinces in a fixed ratio established separately and the ratios or amounts are subject to periodic negotiation. After such decentralization measures, the provinces also share in any increase in revenues or benefits from economizing on expenditures. The provinces, in turn, share their revenues with the county-level government, which, in many ways, can be compared with that of the centre-province relationship. This implies that provincial governments have more or less the same revenue sharing scheme with their lower level governments.

Table 9.5 shows the data for central-provincial revenue-sharing in the Shanghai Economic Zone. This system has been called the system of "eating out of separate kitchens".

This kind of set-up of differential revenue-sharing rates with individual provinces, whilst successful in stimulating the initiative of localities in undertaking development projects by giving them authority to have their own financial revenues at their disposal, reinforces the disintegrative tendency.

Although the following table concerning central-provincial revenue-sharing covers only the Shanghai Economic Zone, it is representative in the sense that the three major categories of revenue-sharing are included:

a. Shanghai, Jiangsu, Zhejiang and Anhui have fixed percentages of total own and shared revenue retained by the province, the remainder being remitted to the centre;

b. Jiangxi retains all its own revenue and receives a fixed amount from the centre;

c. Fujian fixed its contributions to the centre in money terms from 1985 onwards. It retains its own and shared revenue and pays a fixed amount to the centre.

It should be noted that the responsibilities of provincial and lower-level authorities include their own investment projects apart from their public expenditures.

Table 9.5 Central-Provincial Revenue-sharing in the Shanghai Economic Zone (1980-1985)

	1980	1981	1982	1983	1984	1985
Shanghai	8.6%	8.46%	10.51%	n.a	n.a	26.0%
Zhejiang	13.0%	13.0%	56.0%	51.8%	n.a	55.0%
Jiangsu	39.0%	37.0%	38.0%	35.7%	n.a	39.0%
Anhui	58.1%	58.1%	77.0%	76.15%	n.a	80.1%
Jiangxi	138	138	138	n.a	n.a	239
Fujian	150	150	150	n.a	n.a	-235

Source: Data for 1980-1983 from Lynn T.White III: Shanghai Shanghaied p.44, data for 1985 from the World Bank Report Investment and Finance

Notes:
a. The arrangements for 1985 were to govern revenue sharing between the central and local governments for five years beginning in 1985; data for 1984 is not available but absence of it does not affect the whole nature of the system because changes were only in percentage and not in the basic principle.
b. For Jiangxi & Fujian province the figures given refer to the amount in terms of thousands of yuan transferred from and to (with -) the central government.
c. The percentage in the table refers to the centre-province

division ratio, i.e., the share of the total revenue the provincial govern ments have at their own disposal.

To assess the pros and cons of this fiscal system is beyond the scope of this study. Several observations are, however, relevant for our present study.

One of the characteristics of such a system is that there is still a vertical balance. Of the large share of revenues collected by the provinces, a disproportionate amount is raised by the richer ones. If a local government is able to generate additional revenue outside the contract, this is shared with its next superior level at an agreed ratio. The centre extracts some of this and a smaller proportion of the revenue raised by middle-income provinces and transfers some of these as subsidies to the poorest regions. The poorest provinces such as Xinjiang, Qinghai, Tibet, Gansu, Yunnan, Guizhou, Guangxi etc. are, however, permitted to retain all their revenues and to receive central subsidies as well, such as Jiangxi in the Shanghai Economic Zone. The mobility is thus centre-province and each administrative "cell" is active.

Moreover, with such revenue-sharing proportions, which are based on 1979 realized revenue and expenditure figures, provincial budgets are no longer tied completely to the national budget. Provinces have their own sources of funds with some freedom to expand in the future. Lower level governments have a strong incentive to promote local investment since this will lead to rapid growth in their income. The economic interests of government at each level are sharply identified, and each level's government tries to ensure that the returns are maximized.

During the reformist era of the 1980s when Zhao Ziyang was prime minister, the central government increasingly relinquished control over budgets to the provinces. Although Zhao was dismissed, his legacy has survived: economically successful coastal areas such as Guangdong now pass on ever smaller portions of their earnings to the central government and they are not likely to give in. More than ever before, the localities manage the capital movement to their own benefit. This explains why the local governments are interested in their own raw materials. These raw materials, if processed locally, will give extra revenue to the local budget. This may likely lead to duplication of investment and production - a topic we will discuss in detail later. "Eating from separate kitchens" gives the freedom to "cook separate (and duplicated) dishes". The result has been "the emergence of a succession of 'commodity wars' over such things as wool, silk and cotton, whereby local governments, production units and

merchants competed for supplies."[81] The national market is "one where the feudal lords contend, regions put up blockades, trades practice monopolies and the wars are ceaseless....".[82] As Audrey Donnithorne said when she was analyzing the cellular nature of the Chinese economy in the 1970s (Audrey Donnithorne, p.18):

> "In so far as funds for investment come out of the budget of the controlling local authority, local boundaries are also barriers to the movement of capital".

9.4 Some Conclusions

The previous analysis on factors and goods mobility suggests that the Chinese economy is in effect "a collection of provincial economies". Administrative boundaries are quite important in the Chinese economy and the vertical planning hierarchy still has much influence despite recent reforms.

Of course our analysis cannot be considered complete. For one thing, generally provinces were taken as the units of analysis. The analysis could be pushed down to the lower administrative level. But there is no particular reason to conclude that the scenario given in our analysis does not reflect the characteristics of the factor (commodity) mobility mode in China, especially the vertical nature of capital mobility. Although cast largely in terms of factor and commodity mobility, the lack-of-integration hypothesis has been tested, partially at least. We can see that the Chinese economy is "fragmented" by its administrative boundaries and that provincial economies are influential and relatively independent with respect to the allocation of production factors and commodities.

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[81]. See China Quarterly, 23 August 1988.

[82]. Ibid.

CHAPTER 10
LACK OF ECONOMIC INTEGRATION: DUPLICATION OF INDUSTRIAL ACTIVITIES

If we were to stop at the qualitative assessment of the integration issue (mobility of production factors and commodities), the observation of a lack of integration in China would be imcomplete. For one thing, mobility of production factors and commodities is, after all, only one dimension of integration.

For this purpose, this chapter intends to have an investigation of industrial activities in China. In fact, data pertaining to industrial system duplication constitutes an additional body of evidence that can be brought to bear upon the "lack-of-integration" hypothesis.

10.1 Autarky: Similarity of Industrial Structure

Before we look into details of the ten important industries in the Shanghai Economic Zone, a basic analysis of the six regions of the Zone is necessary. According to Chinese statistical data, national income accounts are limited to the net material product at current prices of five broad sectors: agriculture, industry, construction, transportation and commerce. The following table shows the composition of national income by province in the Shanghai Economic Zone:

Table 10.1 Composition of National Income by Province in the Shanghai Economic Zone (1985)

Province	Agriculture	Industry	Construction	Transport	Commerce
Shanghai	4.5	73.1	3.4	4.0	15.0
Jiangsu	32.6	51.7	6.1	2.8	6.8
Zhejiang	33.3	47.4	5.5	3.5	10.3
Anhui	50.3	33.8	5.9	3.4	6.6
Fujian	40.9	36.5	7.9	4.4	10.3
Jiangxi	47.6	33.7	7.3	4.2	7.2

Source: Statistical Year Book for the Shanghai Economic Zone 1986, pp.67-69.

It is not difficult to see that within the Shanghai Economic Zone the development level varies. Shanghai, Jiangsu and Zhejiang which are located in China's coastal area are industry-oriented regions while the rest are more or less agriculture-oriented regions. Shanghai is the most advanced region among the six in terms of industrial capacity. However, the snapshot of the ten important industries in the six regions of the Zone suggests that all the six regions have their industrial production systems and the promotion of self-sufficiency at provincial and lower levels extends to a variety of products.

Table 10.2 Output of Major Industrial Products (1986)

Province	Electric fans	T.V.	Steel	Cement	Chemical Fertilizer
Shanghai	349.90	342.31	801.40	227.28	24.25
Jiangsu	556.26	258.06	114.95	1329.40	122.42
Zhejiang	438.00	79.52	46.23	998.00	59.75
Anhui	69.44	26.64	202.14	679.55	76.14
Fujian	49.81	37.75	34.42	321.76	32.89
Jiangxi	55.92	9.57	91.71	400.35	24.21

Province	Sewing Machines	Bikes	Wrist watches	Trucks	Motor vehicles (incl. trucks)
Shanghai	313.18	634.76	1199.75	2677	15147
Jiangsu	82.75	419.04	466.97	17479	22323
Zhejiang	64.45	191.09	80.00	2669	5699
Anhui	15.50	112.99	81.43	2240	2765
Fujian	17.32	64.39	36.34	801	870
Jiangxi	10.82	39.17	85.00	2284	5319

Source: Statistical Yearbook of China 1987 p.252.
Note: the unit for the products is 10 thousand. For steel, cement and chemical fertilizer the unit is 10 thousand ton

The dispersion of production activities in the Shanghai Economic Zone shown above demonstrates that the five provinces and Shanghai were producing all these products.

In general, the more specialized each economy is, the more likely they will have commodity exchange. Or, to put it in another way, the more self-sufficiency-oriented, the less likely for them to be motivated to have commodity exchange. Such duplication of industrial activities may also be identified by comparing the industrial production structure.

We chose five industries as a yardstick to show duplication: the machinery industry, the textile industry, the food(processing) industry, the chemical industry and the metallurgy industry. This is because among thirty-two industries these five industries are leading ones. The production value of the five industries is nearly 50% of total industrial production value in China. In 1986, for example, the share of these five industries was 46.41%.

Table 10.3 Share of the Five Leading Industries per Province in the Shanghai Economic Zone (1987)

Province	Percentage
Shanghai	51.97
Jiangsu	52.97
Zhejiang	48.86
Anhui	46.30
Jiangxi	43.12
Fujian	38.93

Source: Compiled from Wu Shi-quan On the Similarity of Industrial Structure Management of Industrial Economics 1987 p.52.

This investigation of the Shanghai Economic Zone indicates that the shares of the five leading industries are very near (43%-51%) for the five provinces in the Zone, with Fujian province being a little lower. The share for Fujian is different from the other provinces because Fujian had to face long-term military confrontations with Taiwan. As a result the economy in its coastal areas remained underdeveloped.

After reviewing all these facts, the situation of industrial duplication can be seen. One question that arises is can we then reach the conclusion that duplication as such in China is negative?

Undoubtedly, to conclude that duplication of production is in general inefficient is too superficial. To use the duplication of industrial production as an indirect indicator for the lack-of-integration hypothesis, some meticulous efforts are indispensable. It is therefore necessary to address at least the following essential issues:

a. Is the duplication of production limited either to some products, or to some levels? Some duplication is acceptable, or even necessary anyway.

b. Is there great demand for the products or can the products be sold? Duplication, even though extensive, could be positive if the products would meet local demand.

c. Are the factories producing similar or identical products? Sometimes a category of production may cover a wide range of products so that a textile sector in province A may specialize in totally different products than the same sector in province B.

d. Is the duplication due to some similarity of development level or resources endowment etc.? Duplication could be a result of similar resource endowment, or similar development level.

a. Extent of duplication

To start with, we need to see the extent of the duplication. The above snapshot can thus be supplemented by calculating the range of products in the Shanghai Economic Zone the production of which the provinces are involved in (see Table 10.4).

Some significant findings can be summed up from Table 10.2, Table 10.3 and Table 10.4. An important one, among others, is that the dispersion covers quite a range of products including both light and heavy industry products. According to the Chinese Statistical system, "heavy industry" primarily refers to industry producing producer goods, such as metals, electric power, coal and coke, building materials, timber and machines for use in production. The first five items selected in Table 10.4 belong to heavy industry. "Light industry", on the other hand, refers primarily to consumer goods such as foodstuffs, textiles, paper and metal

products for daily use.

Another finding is that the tendency to duplication is surprisingly constant. At least in the range of the products concerned, the geographical dispersion in industries has had hardly any change at all for seven years (1982-1988). Instead, for some consumer goods, viz., refrigerators, recorders, T.V.s etc., there is a new tendency to produce these products in all provinces of the Zone. Some of the industries developed rapidly in the mid-1980s so that until 1985 no statistical data were available simply because these industries did not exist or were at least negligible. This appears to suggest that, for some reasons which we will discuss later, duplication extends in the years of economic reforms, and the familiar desire of self-sufficiency in the past still has influence. Recent reforms, while have improved the situation, have not yet stopped the trend.

Table 10.4 Number of Provinces involved in various Production Activities in the Shanghai Economic Zone (1982-1988) (out of 6)

Product	1982	1983	1984	1985	1986	1987	1988
Coal	5	5	5	5	5	5	5
Cement	6	6	6	6	6	6	6
Pig iron	6	6	6	6	6	6	6
Steel	6	6	6	6	6	6	6
Motor Vehicles	6	6	6	6	6	6	6
Fertilizer	6	6	6	6	6	6	6
Clothth	6	6	6	6	6	6	6
Bicycles	6	6	6	6	6	6	6
Sewing-machines	6	6	6	6	6	6	6
Watches	6	6	6	6	6	6	6
T.V's	n.a	6	6	6	6	6	6
Refrigerators	n.a	n.a	n.a	6	6	6	6
Washingmachines	n.a	n.a	6	6	6	6	6
Recorders	n.a	n.a	n.a	6	6	6	6

Source: China Statistical Year Books and World Bank: China Long Term Development Issues and Options p.73.

In fact, the duplication pattern of production can be examined at three administrative levels: not only at provincial level, but also at municipal level and county level. While the data at provincial level is readily available, data at municipal and county level is derived from various sources including fieldwork.[83]

The following is the result of an investigation into three cities in the Shanghai Economic Zone, viz., Suzhou, Wuxi and Changzhou. The percentage in the table is the share of each industry as of total industrial production value.

Table 10.5 The Industrial Structure of Suzhou, Wuxi, Changzhou

	Industrial Structure (%)			
Cities	Textile	Food	Chemical	Machinery
Changzhou	26%	3.6%	5.6%	16%
Suzhou	20%	3.5%	8%	11%
Wuxi	22%	2.3%	5%	14%

Source: provided to the author.

These three cities are very close to each other. The industrial structure, however, is surprisingly similar and duplication of production can be seen. If these cities could have specialized in one or two of the industries and then exchange their products, it would have been economically more profitable because the transportation cost involved would be less than that with remote provinces. Let it be noted that the sizes of the three cities, especially Suzhou and Wuxi, judged by population, are similsr the same: the population of Changzhou is 0.66 million, Suzhou is 0.84 million and Wuxi is 0.91 million (1989).

Another set of empirical data for the ten important cities in the Shanghai Economic Zone (Shanghai, Suzhou, Wuxi, Changzhou, Nantong, Hanzhou, Jiaxin, Huzhou, Ningbo and Saoxin) provided a conclusion broadly consistent with the results of our previous investigation: the share of textile, machinery, chemical industries is around 50%. The detailed industrial structure in 1986 for these ten cities, which have been divided

[83]. The help the author has got from the Shanghai Statistical Bureau is gratefully acknowledged.

into A, B, C, D four groups, is as follows:

Table 10.6 The Industrial Structure of the Ten Important Cities in the Shanghai Economic Zone

	Textile	Machinery	Chemistry	Total
A	16.5%	17.1%	17.1%	50.7%
B	29.2%	14.4%	13.5%	57.1%
C	26.4%	19.3%	10.4%	56.1%
D	30.6%	14.0%	8.6%	53.2%

Note: A=Shanghai, B=Suzhou, Wuxi, Changzhou, Nantong, C=Hanzhou, Jiaxin, Huzhou D=Ningbo, Saoxin

Source: Based on New Problems, New Proposals No.63 p.10. Shanghai Social Sciences Academy,1988.

Table 10.7 The Industrial Structure of Seven Counties in Zhejiang 1987

County	Machinery	Chemistry	Textile	Food	Building Material
Yuhang	23.14%	14.22%	21.00%	15.25%	12.26%
Jiande	23.00%	19.00%	n.a	12.50%	n.a
Tonglu	30.54%	8.80%	14.38%	16.00%	8.12%
Chunan	n.a	14.35%	n.a	36.00%	8.30%
Xiasan	25.94%	10.82%	20.87%	13.72%	10.46%
Linan	25.67%	13.64%	n.a	26.24%	10.90%
Fuyan	26.67%	9.7%	19.34%	23.42%	n.a

Source: provided to the author.
Note: n.a. = not available.

While there is provincial data on the theme of industrial duplication, reliable and systematic county level data is not so easy to get access to. But

an investigation of seven counties in Zhejiang province, the results of which were presented in Table 10.7, greatly confirms our thesis that duplication pattern was quite normal until recently.

The World Bank research provided similar evidence in its investigation in Jiangsu, a province in the Shanghai Economic Zone. The investigation covered quite a number of production actiities:coal, cement, pig iron, steel, fertilizers, bicycles, machine tools etc.

As we will see from Table 10.8, more than two-thirds of the 14 prefectures or municipalities investigated were involved in production activities for the same products.

Indeed, the objection to the duplication of industrial activities is not simply that there is duplication but rather that it occurs so widely: duplication exists not only at the provincial level but also at the lower level.

Table 10.8 Dispersion of Production Activities in Jiangsu (1982)

Product	Number of prefectures or municipalities involved (Out of 14)
Coal	9
Cement	14
Pig iron	9
Steel	13
Fertilizers	14
Machine tools	13
Cloth	14
Bicycles	12
Sewing machines	12
Watches	11

Source: Compiled on World Bank China Long-Term Development Issues and Options p.73, Table 5.1.

b. The demand for the products

The extent of the duplication having been investigated, the second issue that should be addressed is related to the demand for the products.

The comments of Xue Muqiao, a famous Chinese economist, is relevant in this regard:

> "We obviously do not need this many, but these plants belong to different ministries, provinces and counties. In view of the profits these plants can make, no unit wants to disown them...There are almost 1000 municipalities and counties wishing to produce refrigerators, electric fans, washing-machines, recorders and many other products this year (1980). If all rush to set up factories at the same time, many will be forced to stop or delay their construction when half-done."[84]

According to the China Daily,[85] due to the independent production system for each province, 70 million watches were made in 1986 but only 40 million were sold. Another article also mentioned the over-production in wrist-watches, bicycles and sewing machines: the production of wrist watches in the first three months of 1987 was 29.7% higher than in the corresponding period in 1986.[86] The bike industry produced 35.7 million bicycles in 1986, 10.6 % more than 1985, but sales remained at the 20.22 million figure. The output of sewing machines was 9.26 million in 1986, roughly the same as in 1985, but unsold stocks increased by 15.2% to total 2.65 million.[87] More recent reports show that there are a lot of unwanted products. One report says that of 650 products distributed by the Ministry of Commerce, at least 25% are virtually unsaleable. Chief among the unwanted items are textile goods and clothes, black-and-white TVs,

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[84]. This comment is quoted from Carl Riskin's The Political Economy of China. See p.217 of that book.

[85]. China Daily 20, February,1987.

[86]. China Daily 20 May 1987.

[87]. Paul Bowles and Gordon White Contradictions in China's Financial Reforms : the relationship between banks and enterprises Cambridge Journal of Economics Vol. XIII p.481-495.

refrigerators and bicycles.[88] Such anecdotal evidence appears to suggest that as a result of blind duplication and without taking into account the end-users' demand, many are "left on the shelf" and the stockpile increases. As we will see later (Table 10.11), some provinces have to withdraw from the "duplication competition" in some production.

c. The variety of products

It is hardly possible to examine every sector to see the variety of products. We may, however, pick up the textile industry as an example. In the ten important cities in the Shanghai Economic Zone investigated in Table 10.6, the duplication is such that almost all of the ten cities have cotton, linen, silk, wool and synthetic production; and among the ten cities there are nine cities produce similar bikes, seven produce similar type sewing-machines, six produce similar watches! Table 10.8 already showed that in Jiangsu province the duplication of specific products is extensive.

Of course the municipal and county level investigation indicates that, given the limited resources, the degree of similarity of industrial structure is not as large as that at the provincial level. But it still can be identified:

> "Each provincial and municipal planning bureau accordingly continues to emphasize the development of a wide range of industrial activities on a scale tailored to local needs, rather than concentrating its resources on a large-scale low-cost production of a narrow range of commodities for export to other localities" (World Bank, 1988, pp.99-100).

d. Natural resources and the development level

The last issue that needs to be addressed is, can such extensive duplication be explained by natural endowments and development level?

We have already demonstrated at the beginning of this chapter that the development level varies in the Shanghai Economic Zone. Sometimes duplication is understandable if the economies involved have more or less the same resources or development levels. It is not surprising for OPEC countries to have oil production duplication in their individual countries. But in the Shanghai Economic Zone this is not the case. Our analysis of the

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[88]. See "Left on the Shelf" Far Eastern Economic Review 1 August, 1991, p.49.

percentage of national income for each region (Table 10.1) has already confirmed this. Within the Zone are relatively developed and developing provinces as well. In terms of industrial capacity and other aspects, Shanghai is one of the most advanced parts of China whereas Jiangxi is one of the least developed ones. Let it be noted, as we have illustrated in Part 2, that industrial concentration and specialization did exist before the 1940s. The industrial survey mentioned in Chapter 5 showed that the three major industrial centers, namely, Shanghai, Tianjin and Qingdao had around 4/5 of the share of the country as a whole (see Table 5.3). Our analysis thus supports the following essential conclusion: duplication, which occurs so widely, can only be explained by the fact that it is a result of some kind of policy pursued after the Communist takeover in 1949.

10.2 The Economic Cost of Duplication

The economic inefficiency of such dispersion of industrial activities is difficult to calculate precisely. The present complicated price structure in China adds to the complexity to quantify the production cost curves in different industries of different provinces. This, however, does not imply that in the dearth of meaningful price signals, any empirical attempt will be impossible to identify the costs imposed upon such a production pattern.

There are some studies which will show how the duplicative pattern of production appears to be inefficient. For example, to compare the dispersion of production activities on the one hand, with the size of production output on the other, will surely throw light on the theme of economic inefficiency, because dispersion of industrial activities is not efficient if it is accompanied by a low level of production volume.

Table 10.9 shows that for the cloth and steel industries, the percentage for Shanghai plus Jiangsu is above 50%, whereas for Fujian plus Jiangxi it is lower than 10%.

The data for these two industries is not exceptional. A close inspection of the production volumes of each province reveals that in almost all cases for the industries examined, Shanghai and Jiangsu contribute around 50% of total output, with cement and fertilizer a little bit lower but still higher than 40%.

In the consumer goods industries such as the sewing-machines, the bike industry, the watch industry and the colour TV industry etc., the percentage for Shanghai is always half of the total, whereas the percentage for Jiangxi plus Fujian is, in all cases, around 10%. In the watch industry, Fujian province only produced 400 watches in 1983!

Table 10.9 The Percentage of Production Volume of Steel and Cloth in the Shanghai Economic Zone (1983-1987)

Steel					
Region	1983	1984	1985	1986	1987
Shanghai	58.4%	56.7%	55.2%	61.7%	61.2%
Jiangsu	8.3%	8.6%	9.5%	8.9%	9.5%
Zhejiang	5.0%	5.4%	5.4%	3.9%	4%
Anhui	20.1%	19.8%	19%	15.7%	14.9%
Fujian	2.7%	3.2%	3.2%	2.8%	2.9%
Jiangxi	5.4%	6.3%	7.7%	7.3%	7.5%
Zone	100%	100%	100%	100%	100%
Cloth					
Region	1983	1984	1985	1986	1987
Shanghai	31.2%	30.4%	27.6%	24.6%	23.2%
Jiangsu	38.2%	39.1%	38.6%	38.8%	39.9%
Zhejiang	12.1%	14.2%	16.25%	18.2%	17.7%
Anhui	10.6%	8.8%	10%	10.5%	10.7%
Fujian	2.6%	2.7%	2.7%	2.9%	3.2%
Jiangxi	5.3%	4.7%	4.9%	5.0%	5.3%
Zone	100%	100%	100%	100%	100%

Source: calculated from the individual provincial statistical data in the China Statistical Year Books.

As a result of extensive (or excessive) duplication, there is storage of unsold (perhaps never to be sold) products in some places and there is shortage of raw materials in others which have high production capacity. One typical case to illustrate the economic cost of excessive duplication is the case of Shanghai. Our previous investigation (Table 9.3) has shown that the labour productivity in Shanghai is the highest among the six regions in the Shanghai Economic Zone. Commodities produced in Shanghai have in fact brought the state a lot of sales tax. In the mid-1980s, the average sales tax on Shanghai goods was 21 percent whereas for Wuxi and Suzhou the

average sales tax was only 13 and 12 percent respectively (Lynn T.White, 1989, p.19). But Table 10.10 shows that shortages of materials are serious in Shanghai city which brings a lot of revenue to the state.

Table 10.10 Shortages of Raw Materials in Shanghai, 1985

	Requirements	Planned allocation (m.metric tons)	Shortage % of Plan
Cement	3.5	51	49
Steel	2.43	60	40
Lumber	1.5	60	40
Ferrous metals	0.21	69	31
Chemical inputs	3.04	76	24

Source: Lynn T. White III Shanghai Shanghaied p.66. Table 9.

Many of the most efficient and modern factories in Shanghai cannot develop their potential due to the improper protectionism on raw materials from other localities. The materials are allocated inefficiently!

Duplication is inefficient if the production volume is low. Table 10.2 at the beginning of the chapter has already demonstrated the production volume for each province. In most cases there are understandably more than one factory in one province. We need more data to see economies of scale or dis-economies of scale in some provinces. Nevertheless the production volume in some province(s) is even lower than the empirical criteria for an individual enterprise. For example, the steel production volume for Fujian is 344,200 tons whereas the criteria for economies of scale is set at 1-3 million tons.[89]

10.3 From the Shanghai Economic Zone to China

Up to now our analysis of the duplication of industrial activities has been confined to the six provinces of the Shanghai Economic Zone. Can it, however, be established that the conclusion so far reached is also applicable to other Chinese provinces? In other words, is the phenomenon examined so far typical for the Chinese economy as a whole?

At least two questions should be explored before a more general

[89]. For the criteria of economies of scale, see **Chapter 2.**

conclusion can be drawn.

First of all, is the Shanghai Economic Zone a special case so that the economic development pattern is different from other regions?

In fact, there are several special economic zones in China to which the central government does have pursued a special policy.[90] The Shanghai Economic Zone is, however, not a "special" zone at all. Our description of the background of the Shanghai Economic Zone has demonstrated that the Shanghai Economic Zone is not a special case from the policy perspective. It has never been the intention of the central government to have the Shanghai Economic Zone as a zone of production duplication.

Secondly, is the development pattern in the Shanghai Economic Zone due to its specific conditions such as transportation facilities etc.? In some cases, due to a backward transportation system raw materials can only be transported costly to the neighboring locality and so do final products. Duplication is thus one of the solutions to the survival of localities.

It was illustrated already that the development level and natural resources vary in the Shanghai Economic Zone. The duplication is by no means the result of similar natural resources nor of the similar development level. In terms of transportation facilities, it can in fact be argued that, if anything, fragmentation should be expected to be lower in the Shanghai Economic Zone than in the rest of China, or the integration should be expected to be higher. For one thing, historically Shanghai has been the heart of industrial China even before 1949, and the Shanghai Economic Zone as a whole is one of the developed areas in the national context. One would therefore expect Shanghai and its surrounding areas to have the most highly developed transportation system in China, which will be relatively easy (in comparison with other areas) to stimulate economic integration. Moreover, because of the relative administrative independence of Shanghai and the heavy concentration of heavy industry in the Shanghai area, one might well expect to find the Shanghai Economic Zone one of the most integrated or least fragmented areas of the country because specialization would be more likely to be acceptable as a result of historical development. It was probably one of the reasons for the central authority to choose the Shanghai Economic Zone as a zone for economic integration. The other provinces must be less integrated if the Shanghai Economic Zone is not integrated at all.

Apparently, given the scope of this study, it will not be feasible to

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[90]. The Shenzhen Special Economic Zone is one, among others, of such "special" zones where there is more flexibility in taxes, wage systems etc.

investigate in detail the whole development pattern of the Chinese economy, to cross-check whether our conclusion from the Shanghai Economic Zone is correct or not. However, we may well amplify two of our previous analyses to the Chinese economy as a whole: the dispersion of industrial activities and the comparison with the concentration of industrial production volume.

Table 10.11 The Dispersion of Various Production Activities among 29 Provinces in China (1982-1988)

Production activity	Number of provinces involved in activity (from 1982-1988)						
	1982	1983	1984	1985	1986	1987	1988
Coal	27	27	27	27	27	27	27
Cement	27	27	27	27	27	27	27
Pig iron	27	27	27	27	27	27	27
Steel	28	28	28	28	28	28	28
Fertilizers	28	28	28	28	28	28	28
Cloth	28	28	28	28	27	27	27
Bicycles	26	26	26	24	24	24	24
Sewing machines	24	24	24	22	21	21	21
Watches	24	24	24	24	23	23	23
T.Vs	26	26	26	26	26	26	26
Refrigerators	n.a	n.a	n.a	n.a	20	22	22
Washing-machines	28	28	28	28	28	28	28
Motor vehicles	26	26	26	24	25	25	25

Source: See Table 10.6

There are altogether twenty-six provinces and three provincial level municipalities (Shanghai, Beijing and Tianjin).[91] The numbers in the table refer to the provinces involved in the various production activities out of the total of twenty-nine provinces and municipalities in total, and the data

[91]. Provinces here refer also to autonomous areas. Heinan province was established only recently, and Taiwan, though regarded as one province of China, has understandably separate statistical data.

is also presented in time series to demonstrate the trend.

Table 10.11 shows that the situation as a whole is a somewhat different from that in the Shanghai Economic Zone. A declining trend in the dispersion of production activities can be found in the bike industry, sewing machine industry etc. In the bike industry, for example, three provinces, namely, Inner Mongolia, Ningxia and Gansu have "withdrawn" from the "duplication competition". This can be partly explained by the fact that since the early 1980s, the central government, realizing the inefficiency of such a situation, started to emphasize more on specialization. Yet the duplication is still striking, especially in the consumer goods: the number of provinces involved in TV production has actually been constant and the number of provinces involved in producing refrigerators has been on the increase.

Another indicator which is of interest for us to analyze is the "Hofman Ratio" - the ratio of total light industry production value vs.total heavy industry production value.

Table 10.12 The Hofman Ratio per Province in China,1986

Beijing	0.779	Zhejiang	1.802	Sichuan	0.869
Tianjin	1.200	Anhui	1.212	Guizhou	0.650
Hebei	0.866	Fujian	1.565	Yunnan	0.914
Shanxi	0.392	Jiangxi	0.878	Tibet	0.684
Mongolia	0.768	Shangdong	1.179	Shaanxi	0.392
Liaoning	0.484	Henan	0.978	Gansu	0.349
Jilin	0.729	Hubei	0.955	Qinghai	0.655
Heilongjiang	0.518	Hunan	0.856	Ningxia	0.481
Shanghai	1.218	Guangdong	2.122	Xinjiang	0.890
Jiangsu	1.326	Guangxi	1.405		

Source: Based on China's Statistical Yearbook 1987.

Those provinces which have ratios larger than one are light-industry oriented provinces, while those which have ratios lower than one are heavy industry-oriented. Table 10.12 shows clearly that the heavy industry-oriented provinces are such as Gansu, Shanxi, Liaoning, Ningxia, Heilongjiang etc., because their Hofman ratios are about 0.5. Guangdong, Zhejiang, Fujian etc. are more light-industry-oriented, because their Hofman ratios are more about 1.5. But many of the provinces in China have ratios near to one. This indicates a high degree of similarity in heavy/light industry structure.

The dispersion of industrial activities may again be compared with the concentration of product volume:

Table 10.13 The Distribution of the Volume of Production (1982)

Region & City	Gross Industrial output shares			Output/ population
	Total	Heavy	Light	
Three cities	19.3%	17.8%	20.8%	6.9
Bejing	3.9%	4.3%	3.4%	7.8
Tianjin	3.7%	3.2%	4.2%	7.4
Shanghai	9.0%	8.0%	10.0%	15.0
Other Provinces	80.7%	82.2%	79.2%	0.8
National	100%	100%	100%	

Source: Based on data from the World Bank: China Long-Term Development Issues and Options p.74.

A few explanations are useful to interpret the above table. One may notice that the figures for the three cities as a whole is not the total sum of individual cities: while the share for Beijing, Tianjin and Shanghai was 3.9%, 3.7% and 9.0% respectively, the share of industrial output for the three cities should be 15.6%, instead of 19.3%, of the total output in China. The reason for the deviation is that the figure for the three cities includes some rural counties surrounding the cities whereas the figures for individual cities exclude the rural counties.

Moreover, since the three municipalities accounted for 19.3% of total output and the output/population ratio was 6.9, their total population

must represent nearly 3% of the total. Similarly, since the output/population ratio for Shanghai is 15, as the table showed, the industrial output is quite concentrated in Shanghai: 0.6 (9/15) % of the population is producing 9% of the total of industrial products!

The lower level data (municipal and county level) shows that the dispersion of industrial activities varies from province to province and varies from product to product. The World Bank study has chosen two provinces, both of which belong to non-Shanghai Economic Zone provinces, for their investigation, and the results are presented here:

Table 10.14 The Dispersion of Production Activities in Hubei and Gansu

Product	Number of prefectures or municipalities involved in the production	
	Hubei	Gansu
Coal	7	n.a
Cement	14	13
Pig iron	3	2
Steel	8	4
Steel products	14	7
Fertilizers	12	6
Machine tools	9	2
Cloth	14	4
Bicycles	6	1
Sewing machines	8	0
Watches	n.a	0

Source: Based on data in World Bank Country Report: China Long Term Development Issues and Options p.73.

In general, the lower data for the two provinces selected still confirm the findings in the Shanghai Economic Zone: there is dispersion of the production in steel, cement etc. But the data for Gansu province showed some differences when compared with the data at the same level for Hubei province. How can we interpret the data? Does the data from the World Bank contradict our previous conclusion?

Further investigation shows that Gansu province is a different case in the sense that heavy industry has been stimulated in this province by the

central planner and the share of heavy industry has increased sharply: it was 22% in 1949, but in 1972 it was 82%. In 1984 and 1985 it was 77% and 75% respectively (World Bank,1988,p.212). A Hofman ratio analysis showed that the light/heavy ratio for Gansu is 0.349, the lowest among all provinces in China. Nevertheless duplication can still be found in this province: "One plant was built in Jiuquan in northwest Gansu near iron ore and coal deposits to produce only pig iron, while another plant was built 1000 km away in Lanzhou to produce only steel but no pig iron. The first plant was under national government control and the other was provincially owned and controlled.... This lack of co-ordination along with the construction of several other uneconomical, small plants, led to heavy financial losses in the iron and steel industry in Gansu province, and economic losses were even greater"(World Bank, 1988, p.212).

Indeed, the costs for failure to achieve economic integration are substantial because it retards the exploitation of comparative advantages and economies of scale. Some of the industries which have scale-factors involved like large size cement, steel, chemical products and trucks,[92] have been operating without considering the economies of scale.

Take the iron and steel industry for example. China's iron and steel industry, consists of 1800 mills, dispersed throughout all provinces except Xizang (Tibet) and Qinghai which produce only pig iron, and all except Xizang (Tibet) which only produces crude steel and steel products. Small iron and steel enterprises at the county level produce less than 5000 tons of steel per year. The production costs also vary greatly. According to the World Bank estimation (World Bank, 1988, p.80), the production costs for large size enterprises are 138 yuan per bicycle, for medium size enterprises 192 yuan and for small enterprises 304 yuan. Obviously the small enterprises are in most cases operating with economic losses, especially those far away from the source of raw materials. The automobile industry is another example. Although the country produces about 100,000 cars each year, there are over one hundred automobile plants. Some of the plants are so small that they each assemble no more than one or two hundred cars per year. There are even a few each assembling only a few dozen cars a year. A small car plant in Guizhou province used to assemble only 200 to 300 cars a year.

According to the 1989 statistical data, there were typical examples of production volume lower than the economies of scale criteria even if the provincial production volume is regarded as the level for one enterprise.

In fact, there are about 130 automobile factories located in twenty-six

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[92]. For details see the chapters in Part 1 on **Economics of Integration**

provinces. Among these 130 factories, more than 110 factories have the production scale as 1000 per year. 17 factories have production capacity as 100 cars per year. A few have production scale as several cars per year. The production costs could be as high as 20-30 thousands yuan, two or three times higher than the production costs in No.1 Automobile Factory, China's largest automobile factory.[93]

Table 10.15 Automobile Production in China and the Scale Factor

Production Scale	Provinces
lower than 10000 units	Hebei, Zhejiang, Anhui, Fujian, Jiangxi, Henan, Hunan, Guizhou Yunnan, Qinghai, Shaanxi.
lower than 1000 units	Shanxi (800).
lower than 100 units	Gansu (2), Inner Mongolia (30)

Source: China's Industrial Statistics 1989.
Note: the figures in the parentheses indicate the number of automobiles produced.

For industries producing bikes, electric fans, TVs etc., the costs are reflected not only as forgone output but also as excessive duplication in investment and production, underutilization, non-standardization and inferior quality. Large quantity of these products have to be stored since they cannot be sold, as was mentioned earlier.

Seichi Nakajima, a Japanese scholar, has written a special report on China's building materials industry. In this report he mentioned that "the problem (for cement production) is that the equipment of small factories is antiquated and production technology out of date in most cases. The cement produced at these factories is therefore poor in quality."[94] Apart from quality, designs also vary considerably and are constrained by lack of local technological capacity and insufficient local sources of material.

[93]. This example is quoted in Hu Bo-chun's book China: Problem, Dilemma and Painstaking Selection p.7. Our example of the bicycle industry which will be discussed as a case study reflects the same rationality: industrial location is important for economic efficiency.

[94]. See China Newsletter No. 78 Jan.-Feb. 1989, p.17.

Parts are usually not interchangeable.

Typically, when some localities are trying to have independent industrial systems despite the limited capacity they have, they will face a few pressing problems and difficulties. Sources of energy and raw materials are not well planned so that some of these factories frequently have to suspend production; there is a shortage of technicians and skilled personnel; environmental pollution is not well controlled and labor protection is lacking. As might be expected, the endeavour for the development of all kinds of industrial products results in intensive conflicts among the localities which seek for investment funds, raw materials, equipment, and energy resources. This has a clearly adverse impact on the allocation of resources.

The costs of the barriers can also be examined from the consumers' point of view, as in the case of the EC market.[95] Firstly , the frictions to transferring goods decrease the variety of goods available for consumption. The example of the tractor has already been mentioned: the peasants in Guizhou cannot buy tractors produced in Changzhou due to registration barriers. They have to buy low-quality products, locally produced, which is to them an economic cost. Secondly, in theory at least, efficiency requires that all consumers pay the same price for the same goods, allowing for necessary transport costs. In the case of China where the price is set by the state, consumers often pay the same price for different goods due to the fact that they are not able to get access to better quality goods under the regional protectionism.

The costs of barriers may also be reflected in terms of production. By relocating the production of particular goods to the places in which they are produced most cheaply, it could increase the supply of all goods.

Admittedly the analysis presented so far constitutes only an approximation of the lack-of-integration pattern of Chinese economy. For one thing, we cannot assert that the products in the sample, although it includes both heavy and light industries, constitute the whole coverage. Secondly, output values themselves are not convincingly sufficient to show that there is a lack of specialization. But duplication does occur in the leading industries which have been investigated.

Incidentally, duplication is not limited to industrial activities: "Research and development have become highly fragmented, with

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[95]. The methodology used in the EC Commission's Assessment of Economic Effects of Completing the Internal Market - The Economics of 1992 is quite relevant to the present study. See The Economics of 1992 by Michael Emerson et.al.

excessive replication and non-cooperation among research units under different authorities" (Thomas Lyon,p.272).

This brief analysis of the situation in China as a whole, as compared with that in the Shanghai Economic Zone, indicates that the degree of duplication does not vary significantly in China. At the lower level, the coverage of the investigation (two provinces) is not yet enough to reach a general conclusion. But there is no evidence to show that the lack-of-integration hypothesis is not valid at least at the provincial level. As was emphasized earlier, the focal point is not simply that duplication occurs in China, but rather that it occurs so widely. In this sense, the next section which intends to dig up the historical development of such extensive duplication will be an important complementary part to this section.

10.4 Explanations of the Lack of Integration

Having considered the duplication of industrial activities in China, it is now necessary at this stage to introduce a historical perspective because our analysis so far describes the final situation but more or less ignores the development period and the conditions affecting this development process. Put in another way, we need to find some structural explanations of the phenomenon.

In fact, as we pointed out earlier, one explanation of the strong dispersion of industrial activities is actually the self-sufficiency policy pursued in the past. The advocacy of self-sufficiency was not a coincidence. "The resource-allocative dimension of self-reliance was the Maoist answer to the problem of allocation sans market or large planning apparatus"(Riskin Carl, 1985, p.206). Its purpose was to simplify coordinative requirements in the economy and to minimize external links. Mao's comments on the Soviet textbook Political Economy rejected explicitly the principle of a division of labor - a principle for economic efficiency:

> "This is not a good idea. We do not suggest this even with respect to our own provinces. We advocate all-round development and do not think that each province need not produce goods which other provinces could supply. We want the various provinces to develop a variety of production to the fullest extent... The correct method is each doing the utmost for itself as a means toward self-reliance for new growth, working independently to the greatest possible extent,

making a principle of not relying on others..."[96]

The principle of "self-sufficiency" had, in fact, long been emphasized. The phrase "self-reliance" is derived from "self-sufficiency": a locality must be self-sufficient in order to be self-reliant. For a long time "self-reliant" had been a catchword (or a slogan) for every administrative "cell", be it a province, a municipality or a county. Indeed the principle of self-reliance can be traced back to the difficult days of the 1930s and 1940s, "when the Chinese Communist Party had no choice but to make do with the limited resources and backward technology of the guerrilla base areas." In the 1930s and the 1940s, the phrase acquired two different interpretations. When used at local level, self-reliance meant that localities should strive for self-sufficiency in agriculture and in industry. At national level self-reliance meant that the nation as a whole should rely on its own for economic growth instead of relying on external aids or external exchange. To encourage the dispersion of industrial activities, Mao, for example, called upon all provinces "to do as much as possible in developing all kinds of production, so long as they do not militate against the overall situation."[97] In 1958 Mao even called for large enterprises like the Wuhan Steel Works to operate their own machinery, chemical, and construction establishments and to engage in agriculture, commerce, education, military activities in addition to industry (Stephen Andors,p.158).

This principle was strengthened by the Sino-Soviet Rift. As described by Terry Cannon (1990,p.38), between 1965 and the mid-1970s, around 2000 factories were set up in the "third front" (as opposed to the coastal "first front" and Jiangxi and Anhui the "second front") area: Sichuan, Guizhou, Yunnan, Shaanxi and western Henan, Hubei and Hunan. Sichuan province was the core province with its rich agricultural land, fuel supply and mountainous surroundings. These "third front" plants were military-oriented, producing products of aerospace, electronics etc. A policy to duplicate some industrial enterprises and research establishments into the interior inland in the southeast was the answer to the threat of attack from either or both the USA and USSR. Over a seven-year period there were massive and secret investments in the "third front" area, which was thought safest from bombing. Such a policy and the associated transfers of personnel have effects on the location of industries, and the effects are

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[96]. Mao, 1977, c. 102-3. This paragraph was quoted from Riskin Carl.

[97]. John G. Gurley The Dialectics of Development p.132.

likely to be felt even when the military invasion is not a serious threat at all as provincial and local governments since then have sought to build and operate their own diversified industrial systems and to build autarkic "kingdoms". In the late 1970s each rural county ("xian" or "hsien" in Chinese) set up and expanded small and medium-scale factories when essential materials and markets were available locally. The counties were given great freedom in establishing enterprises. The "five small industries" (cement, chemical fertilizer, machinery, power, and iron and steel) formed the basis of the comprehensive local systems of the Cultural Revolution years. The production capacity of small nitrogenous fertilizer plants, for example, grew five times between 1965 and 1969, and their share of national fertilizer output increased from 12 per cent in 1965 to 60 per cent in 1971. In 1965 there were only about 200 small cement plants, but by 1973 the number had grown to 2800, which produced about half of this cement. By 1971 local small and medium size factories were responsible for one-fifth of the national production of pig iron. These small and medium size factories played an important role in the political economy of self-reliance.

In Audrey Donnithorne's article, a vivid picture was given describing the self-sufficiency situation in the 1970s:

> "Self-sufficiency, another of the economic watch-words of present day China, is a corollary of self-reliance. Self-sufficiency may be within an enterprise, a unit of local administration or a commune. Even individual 'hsien' (counties) and municipalities have been urged to build a 'small but complete local industrial system by self-reliance.' In the words of the Shansi provincial radio service 'to battle hard for one or two years and achieve provincial self-sufficiency in light industry products is the glorious battle task of the workers, technicians and revolutionary cadres on the front of light industry.' In keeping with this policy an index figure often quoted when discussing the economic performance of a locality is its percentage of self-sufficiency for a commodity or commodities. For example, towards the end of 1970 the province of Kirin (Jilin) claimed to produce 47.9 percent (neither more nor less) of the light industrial goods its inhabitants needed,

compared with 30 per cent in 1969. In the provincial capital, the Changchun Number One Department Store 'now exclusively sells light industry products made in the province.' The municipality of Wuhan congratulated itself that in the first half of 1970 'the ratio of self-sufficiency in making equipment for industrial production showed an overall improvement.' Self-sufficiency in equipment for producing chemical fertilizer was 'completely achieved' while the ratio of self-sufficiency in equipment for motor vehicles and bicycles reached more than 95 percent. Nanking, however, deplored the fact that 'After a comparison with some advanced places it appeared that our rate of self-sufficiency in light industrial products was not high.' A meeting was summoned to discuss the situation and 'the rate of self-sufficiency in light industrial goods very quickly rose from 70 per cent to about 90 per cent.' Even in the case of smaller cities the same policy was followed. For example, Nanchang (population around 500,000), the capital of Jiangxi, was reported late in 1970 to be '80 per cent sufficient in the main products' of light industry whilst the smaller town of Kochiu, in Yunnan apparently claimed complete self-sufficiency in light industrial and handicraft goods" (Audrey Donnithorne p.609).

In her words: "The picture given is of a large number of highly protectionist states each minimizing its imports while trying to push its exports."

In the same article, Audrey Donnithorne analyzes the rationale for such a policy:

> "The advantages of the policy of self-sufficiency within administrative units are primarily those of administrative convenience and local initiative. Self-sufficiency gives rise to a clear chain of command with those controlling a local administrative unit for a large proportion of its

raw materials and other supplies" (pp 611-612)

Needless to say, the situation has changed greatly in the post-Mao period However, the problem of the "territoriality" of economic activity created in the past by the administrative boundaries of ministries and localities remains unsolved and the vested interests that administrative divisions fostered reinforce such a tendency One example was once mentioned to explain how four separate and comprehensive iron and steel mills came to be built in the medium-sized city of Huangshi [98] Even though the city already had the Daye Iron and Steel Mill, a large-scale centrally administered enterprise, the Hubei provincial authorities built their own Xialu Steel Works in Huangshi for the reason that "all the profits of Daye were handed over to the state and the locality did not gain any benefits " Likewise, the province kept all output produced in Xialu Therefore the municipal government set up its own steel works near tothe national and provincial steel mills That was not the end of the story Since the municipal authorities did not care about the interests of suburban counties and only 300 tons of pig iron were allocated out of 3000 tons needed annually, Daye county also built its own iron and steel mill In this way, redundant construction has occurred and the local government operated their own iron and steel works even though they knew this would incur losses Similar duplication prevailed in other industries in Huangshi Aside from the Huaxin Cement Works, a large central enterprise, there were twenty-three other cement plants operated by the provincial, municipal, county or even lower level authorities Obviously the various administrative bodies operating their own enterprises have been preoccupied with their own benefits and do not consider the interests of various other parties Such examples are not exceptional In Liaoning province, central government invested to establish four big steel mills but the provincial government invested seventy million yuan to build four small-scale steel mills In Jinan municipality, Shangdong province, four steel mills were built belonging to two provincial, one municipal and one county level authority respectively. The local people said humorously "the grandfather, father and son do not belong to the same family", meaning that the four mills have different ownership though they were producing the same product - steel One extreme case was once mentioned to show the economic loss due to lack of economic co-operation There are sixteen chemical factories in Beijing

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[98] Ding Hua A Basic Cause of Poor Results of Investments Lies in the Economic Management System - An Investigation of Iron and Steel Works of the Municipality of Huangshi Economic Management Magazine No 3, 1984

area eight of which produce oxygen while letting off nitrogen and the other eight produce nitrogen while letting off oxygen![99]

An editorial in the People's Daily suggested that "comprehensive factories" would enable local cadres and officials to have at their disposal products manufactured in their domain, regardless of cost, labor and economic efficiency.[100] Local governments, worrying about their own interests, often try to restrict competition between regions and even to deny market access to outsiders. In many cases, enterprises have been prohibited from purchasing better and less expensive goods produced elsewhere.

The central authorities became aware of such kind of economic inefficiency in the late 1970s. Hu, former head of China Social Sciences Academy, commented:

> "Substituting administrative boundaries for natural economic boundaries not only disrupts the flow of materials and products and induces excessive stockpiling, but sometimes also cuts off rational economic co-operation, creates artificial economic separation and isolationism and blocks commodity circulation and material allocation, impeding normal development of the economy."

He Jianzhang in his article The Current Economic Policies of China[101] pointed out more explicitly:

> "One of the principal errors of our economic policy in the past was to neglect developing a commodity economy. Every locality sought after autarky, and, as a result, there was little inter-regional trade. This is a petty producer's outlook of a natural economy. It has gravely inhibited the division of labor, the development of a commodity economy, and the exploration of

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[99]. Such examples are numerous and The History of Economic Reform has mentioned some of them (pp.176-177).

[100]. See Overcome the Mentality of Small Producers, Improve Specialized Cooperation People's Daily 14 October 1987. p.1.

[101]. This article is included in the book edited and translated by George C Wang Economic Reform in the PRC Westview Press, Boulder, Colorado 1982.

comparative advantages between areas, thus impeding foreign trade."

A lot of effort has been made to improve efficiency by encouraging enterprises and local authorities to deal directly across provincial boundaries. The establishment of the intra-provincial economic zones as well as inter-provincial economic zones is actually one of such efforts.

One question will probably be asked: how can it be explained that lack-of-integration is still a persistent phenomenon in the Chinese economy, as was shown in our empirical test, if the central government has already realized the importance of curbing the local protectionism?

Apart from the self-sufficiency policy pursued in the past which we have given full consideration in our previous analysis, transportation problems are also one of the possible causes of fragmentation and duplication. For a long time there had been a lack of investment because transport has been seen as a "non-productive" sector according to the Marxist ideology and has not been placed high on the list of priorities for investment.

In China railways account for nearly two-thirds of the freight traffic. Furthermore most railroads seem to have been established to serve the needs of individual provinces because they radiate from provincial capitals and form separate networks with few interconnections. Such province-centered transportation systems reinforce the cellular character of the economy, and rails are still the only effective link between provinces. In 1984, it was estimated that 27.8 percent of all production brigades were not physically accessible by truck (Terry Cannon, 1990, p.150). In much of the hinterland, it has been excessively costly to transport locally available raw materials to centralized urban factories and the products of the latter back to the villages. A delegation of rural industry specialists found in 1975 that in one county the price of coal rose 50% if it was moved 25 miles. Obviously, the savings in transport costs of producing locally a bulky item such as cement could easily exceed the added cost of using small-scale or backward technology. A rational response (of course, from their point of view) of local governments and individual departments was therefore to minimize transport needs by locating plants to their convenience and benefits. "Comprehensive enterprises" were one of the possible ways to organize production.

Apart from these long-term explanatory factors, another important explanation is that the profit-and revenue-sharing system introduced in the earlier stage of the reforms motivates the local governments, especially the provincial ones, to undertake their own investment initiatives. Local

governments frequently seek to invest in sectors where high rates of profitability are expected. This is particularly obvious in the processing industry and the consumer goods industry. Those provinces which earlier had sent their raw materials to major industrial cities such as Shanghai now establish their own production facilities. This understandably leads to excess capacity in the existing centers due both to shortage of raw materials and to continuous "wars" among localities for raw materials such as silk, cotton etc.

Undoubtedly, the question why the Chinese economy has such a cellular nature deserves a long answer. Some scholars have even referred the lack-of-integration phenomenon to some historical factors. They hold that the Great Wall was not one massive undertaking but initially a series of individual state's walls and China has a tradition as being divided into regions which were self-sustaining and independent of each other.[102] Such an argument needs further research to test. Apart from the influence of the self-sufficiency policy pursued in the past, which is still important even today, lack of the development of a transportation system, the decentralized revenue sharing system described earlier, absence of market price signals are all explanations that are relevant to the question asked. In addition, "the accustomed modes of thought and vested interests of provincial and local leaders who wield considerable authority in economic affairs create an inertia that the national leadership may find difficult to overcome" (Thomas P. Lyon). In September 1990, for example, when the Eighth-Five Year Plan was unveiled in Beijing in which there was a calling for a bigger share of provincial revenues for Beijing, the influential provincial leader of Guangdong, Ye Xuanping, reportedly rebelled and the Mayor of Shanghai Zhu Rongji and a number of other local leaders have followed Ye.[103]

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[102]. In 1934 Chi-Chao-ting put forward an economically and geographically oriented theory of key economic areas in Chinese history. He saw traditional China as divided into regions.For details see The Geography of Contemporary China p.70: Richard Lous Edwards "History:Historical Perspective on the Current Geography of China".

[103]. See Newsweek November 26, 1990. p.37.

CHAPTER 11
ECONOMIC INTEGRATION IN THE SHANGHAI ECONOMIC ZONE - PROGRESS AND ITS IMPLICATIONS

As was noted in Part 2 the establishment of the Shanghai Economic Zone is in fact an institutional innovation with respect to the integration issue. Progress in economic integration and its implications are therefore interesting to the whole study, particularly when the negative effects on lack-of-integration have been identified. The benefits of the integration scheme, if any, are important to justify the policy of integration in the form of the Shanghai Economic Zone.

As a matter of fact, study of economic benefits from integration is a subject of fascination and difficulty. The cases in this chapter are only attempts to cover a small piece of this difficult ground.

11.1 Progress of Integration and Benefits

As was mentioned, the present chapter intends to answer two questions:what is the progress in the Shanghai Economic Zone, and, are there any benefits? Once we start to review some of the cases for progress in the economic zone, we have to bear in mind that the investigation of the benefits from integration presents more problems than those involved in examining the lack-of-integration hypothesis for at least the following reasons:

1. Almost all direct data relevant to this topic is not readily available. Quantitative indicators are even less.

2. Given the experimental nature of the integration in the Shanghai Economic Zone, some benefits are still marginal and the outcome of some integration schemes remains to be seen.

3. Some of the benefits can hardly be expressed in physical or money terms.

It is important to note these limitations mentioned, which will affect the research design and make the present chapter different from the previous chapter both in terms of evidence examined and techniques used.

As quantitative data is so little, the present chapter intends to provide

an analysis of the implications of the cases presented as far as they are expected to be of a more general nature. Specifically, the emphasis of the present chapter is on unfolding the institutional aspect of some integration schemes to see how the lack-of-integration situation is being broken down. The objective of this chapter is therefore not to quantify the benefits as such but rather to assess the significant structural changes of integration in these cases which will lead to more integration. Some of the cases presented here may not provide concrete indicators of economic benefits, but they should indicate a situation in which a positive effect of economic integration can be expected which is still marginal but important.

We will consider several cases in this chapter among which the first one is so systematic and can be regarded as a case study in the proper sense.

Generally speaking, a case study approach has some advantages, one of which is that the opportunity to use multiple sources of evidence (documentation, interviews, direct observation etc.) far exceeds that in other research strategies such as experiments, surveys or histories. It also puts flesh to inferences and gives a vivid scenario to theoretical reasoning. The conclusions that can be drawn from case studies are, however, sometimes less systematic. It is often the case that several cases are therefore to reach more generally valid conclusions.[104]

The cases of integration in the Shanghai Economic Zone discussed here cover the bicycle industry, the textile industry, the machinery industry as well as the financial sector. These cases are chosen because of their representativeness. Naturally the availability of data stemming from the opportunity to collect data on the spot was also one of the considerations. To every case a special title has been added in order to highlight a special feature of that case.

Integration in the bike industry is typical in the sense that, the success of it has been regarded as one of the achievements of the Shanghai Economic Zone. Moreover, the data of this industry is relatively systematic. The situation in the financial sector as a counterpart to our previous description of capital mobility is of interest for an overall evaluation in the financial sector.

While heavy industries are more controlled by the central authority

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[104]. Robert K.Yin (p.53) has mentioned the research method of multiple-case studies: "If one has access to only three cases of a rare, clinical syndrome in psychology or medical science, the appropriate research design is one in which the same results are predicted for each of the three cases, thereby producing evidence that the three cases did indeed involve the same syndrome."

and belong more or less to the planned part of the economy, the light industries of the unplanned part of the economy are more likely to be integrated. Furthermore, duplication is typical of the light industry sector, especially in consumer goods production. That is why the textile industry, as well as the bike industry have been chosen. For the Oriental Textile Corporation the significance lies in the principle of joint responsibility which is reflected in the case.

The integration in the machinery industry is characterized by single product integration which is quite typical as a form of integration at the current stage in the Shanghai Economic Zone.

The information in these cases was taken from extensive interviews with those involved in the integration scheme, visits to the Shanghai Bike Factory and the Shanghai No.3 Bike Factory, the Oriental Textile Corporation and the Financial Bureau of the People's Bank of China Shanghai. The data was supplemented by the hand-outs of the factories in question. The case of the bike industry was cross-checked and expanded by consulting the Yearbook of Light Industry in China (1988) and the other provincial Yearbooks.

11.2 The Bicycle Industry: A Case Study - Diffusion of Technology

Background

China's bike industry is the largest in the world and has been expanding rapidly in recent years. Between 1978 and 1982, according to the World Bank report(1985), total bike production increased from 8.54 million to over 24 million and the number of enterprises engaged in bike production had grown from 38 to 140. By 1988 total bike production had increased to 41 million. Our investigation in the previous chapter shows that all but three of China's twenty-nine provinces are now engaged in the bike production.

From an economic point of view, the bike industry seems to have been expanding very inefficiently. "Bike production offers major economies of scale, with integrated enterprises producing fewer than 300,000 - 500,000 bikes per year likely to be unprofitable" (World Bank 1985,p.103). But in China, the average output per enterprise declined from 225,000 in 1978 to 173,000 in 1982, and fourteen provinces produce fewer than 500,000 bikes per year. In 1988, among provinces which produced fewer than 500,000 bikes, Inner Mongolia produced only 50,000 bikes and Gansu province produced 40,000 bikes.[105] According to the same report

[105]. See China's Industrial Statistics Year Book 1989, p.277.

of the World Bank, unit production costs range from 70 yuan in Shanghai to more than 200 yuan in smaller enterprises in Jilin, Heilongjiang, and Inner Mongolia.

Our investigation into the bike factories in the Shanghai Economic Zone indicates that a large percentage of bike factories have been producing inferior quality bikes at higher costs. The following table shows the bike production volume in time series within the Shanghai Economic Zone:

Table 11.1 Bike Production Volume By Province in the Shanghai Economic Zone (10 thousand)

	1983	1984	1985	1986	1987	1988
Shanghai	520.05	562.17	619.54	634.76	655.76	694.47
Jiangsu	281.84	313.43	375.43	419.04	477.57	446.57
Zhejiang	109.85	144.80	169.71	191.09	225.57	234.84
Anhui	70.26	76.73	90.19	112.99	123.18	126.62
Fujian	26.59	36.48	49.19	64.39	72.15	64.83
Jiangxi	27.34	28.80	30.65	39.17	51.31	56.01

Source: China Statistical Yearbooks: 1984, 1985, 1986, 1987, 1988, 1989.

Table 11.2 Growth Rate for Bike Industry in Shanghai (1983 - 1988)

1983-1984	1984-1985	1985-1986	1986-1987	1987-1988
8%	10%	2%	3%	6%

Source: See Table 11.1.

A few points can be confirmed from the above table. Apart from the fact that all the provinces are involved in the bike production, it also tells us that the bike production was expanding in the least "qualified" provinces: the average growth rate in Zhejiang, Anhui, Fujian and Jiangxi was 16.4%, 12.2%, 20.6 % and 15.4% respectively, being above 10%. Nevertheless, for Shanghai, which is relatively efficient in bike production, the average growth rate was 5.8%, being the smallest. What

is more, the growth rate in Shanghai does not appear to be increasing sharply. In some years it even appears to be declining (see Table 11.2).

This reflects the fact that Shanghai has suffered limitations due to the lack of raw materials, capital etc. for expanding its bike industry.

There are six bike assembly factories and over fifty parts factories in the Shanghai Economic Zone. Due to low quality, thousands of bikes could not be sold and were idled in the storage-house.[106] When the price for raw materials went up, some bike factories could hardly survive.

The Shanghai Bike Factory and the Shanghai No.3 Bike Factory are key factories in the Shanghai Economic Zone. The Shanghai Bike Factory was established in as early as 1940, and the products of this Factory, "Forever" trade-mark bikes, have won the quality prize from the government in the 1980s. The Shanghai No.3 Bike Factory also has a long history and the products, "Phoenix" by trade-mark, have won great popularity not only in the Shanghai Economic Zone but also in the national market. The market demand for name-brand bikes such as "Phoenix" and "Forever" produced in Shanghai had been increasing because of the quality. But both factories failed to expand due to lack of capital, labour and input materials.

The Integration Scheme

Realizing the economic inefficiency in the bike sector, the Shanghai Economic Zone office attempted to promote its integration by forming a regional network for bike production. One problem is, obviously, that the existing bike factories can hardly be closed down. What can be done, however, is to promote cooperation and to encourage the diffusion of technology (including the management skills) among the existing factories.

In 1984 and in 1985 the Shanghai Bike Factory and the Shanghai No. 3 Bike Factory negotiated with bike factories in Suzhou, Nantong, Shaoxing and Hefei. Eventually an agreement on "cooperative production" was reached, which included the following integration measures:

a. Standardization of parts:
   The parts produced in each bike factory would be standardized and therefore interchangeable.

b. Technical cooperation:
   The Shaoxing and Suzhou bike factories were to receive support and technical guidance

[106]. For details see Jianfan Daily August 17, 1985, September 21, 1986. etc.

from Shanghai and would improve both their business management skills and the technology. The Shanghai Bike Factories also promised to provide the other factories with technology needed to upgrade the bike factories in these provinces and allow them to use the Shanghai factories' trade-marks. The Shanghai factories are now working to improve the quality and are engaged in research and prototype production of new products. The director of the Shanghai Bike Factory went personally to the partner factories, and listed 162 items for technical improvement. Equipments were provided for inspecting the quality of the products. The bikes now produced use the trade-mark of Shanghai factories but the specific place (name of the province) is also given. The quality is inspected by the technicians from Shanghai factories.

c. Production factor reallocation:

It was agreed that some raw materials would be shifted to Shanghai and the profits would be divided between the Shanghai factories and their partners.

Table 11.3 The Relationship of the Bike Factories in the Integration Scheme

Type	No. of factories involved	Institutional Arrangement
a	4	Shanghai Factory has decision power over production, personnel, raw materials and sales.
b	11	The Factories become branches of the Shanghai Factory but still have some decision power.
c	18	Contractual relation: co-operative production & co-operative sales.

Table 11.3 shows that the cooperative form varies regarding to the relationship of the bike factories within the scheme.

We may notice that the co-operative relation is flexible in institutional arrangements, and the ownership (collective or state) of the factories concerned remains unchanged. Standardization and specialization have been the major concern, including unification of technical standards for products, design and quality evaluation.

As willingness to integrate would be likely to increase if some regional network were established, a common fund or some infrastructure being built is very important. Within the integration project, it was proposed to set up a Common Fund for further development: 5% of the total output would be contributed to the Fund apart from the issuance of shares of stock. In 1987 25500 thousand Rmb was raised to assist the backward factories in technical upgrading and investment for raw materials (Wuhan Steel Mill and No.10 Steel Mill in Shanghai).[107]

Benefits

While quantification of benefits from such a complex integration process is indeed difficult, an essential point is always to establish that the changes, which could be attributed to the integration scheme, are at least positive. We should try if possible to ascertain not the exact but the broad orders of magnitude. The production volume after integration is therefore of interest to us.

In fact, the production of co-operating enterprises has been increasing year by year. We take the integration project initiated by the Shanghai No.3 Bike Factory as an example.

The increase in the production volume is of significance not only because of the volume itself but also because of the quality of the product. These products which could have been stored and remained unsold without the cooperative scheme. The improved type of bicycles was sold out in the Shanghai Economic Zone.

Benefits can also be measured by increase in profits. With the technical guidance and facilities from Shanghai, in the year when the integrative project was implemented, the Suzhou Bike Factory was able to meet its yearly production targets three months ahead of schedule and realized a profit of 5.2 million yuan.[108] The profits for Shanghai No.3 Bike Factory

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[107]. Horizontal Cooperation Shanghai Statistical Handbook p.157.

[108]. See The Shanghai Economic Zone JETRO Shanghai Office China Newsletter No.71 p.13.

also increased greatly: before the integrative project they were 3.97 million Rmb and became 19.90 million in 1987.[109] On the other hand, the taxation revenue for the State increased: 18.7% increase for No.3 Bike Factory, 50-100 % increase for the other members. The profits for Suzhou Bike Factory were almost 0 in 1983 but in 1984 the tax submitted to the State was 4310 thousand yuan and profits gained were 1260 thousand yuan. According to a government report, the increase in production capacity would have needed several million RMB of investment from the central government had there been no integrative project[110].

Table 11.4 Production Volume Increase within the Integration Project for the Shanghai No.3 Factory

Year	Products
1984	10,000
1985	26,000
1986	46,000
1987	51,000
1988	64,000 (estimated)

Source: provided to the author.

There are also dynamic effects. The Shanghai No.3 Bike Factory was able to specialize in products for the international market because some of the production for ordinary bikes had been shifted to other factories. In terms of management, there has been great improvement for Nantong, Suzhou, Shaoxing bike factories. The quality score for the products of these bike factories is above 93 and the costs have been below 100 yuan despite the rise in the price of raw materials.

[109]. Ibid.

[110]. See The Shanghai Economy Shanghai Social Sciences Academy 1988, p.76.

11.3 Case 2: the Financial Sector - Horizontal Mobility

We have already discussed the centre-province (municipality) mobility model of capital which retarded the efficient allocation of capital: credit and cash plans were handed down through the hierarchy with little room for local initiatives and the mobility of capital among localities had been difficult in the past. The progress of integration in the financial sector is therefore worthy of our attention.

As a matter of fact, the importance of financial integration for the economic integration as a whole was realized, as in Europe, at the very beginning. Early in 1986, it was decided to facilitate financial market integration in the Shanghai Economic Zone. One important change which provided basis for integration was that, ever since the economic reform, banks have also undergone significant changes and local bank branches are allowed to re-allocate loans as long as the total sum still fits the plan target. More important, if a local bank's deposits surpass its plan or it can speed turnover, the surplus can be used to grant more loans. All these measures enable banks to behave more freely in the financial business.

The integration in the financial sector follows two lines: first, to establish a network to break through the rather exclusively vertical movements of capital and second to have an institution that will help handle the emerging horizontal financial relations. In April 1986, heads of twenty-four banks in the Zone held a meeting in Nanjing. An agreement was reached to break down barriers to capital movement. The joint meeting of heads of banks in the Zone became the organizer of the market. The idea was that within the fixed amount of capital allocated by the central authorities, nine of the banks[111] arranged among themselves, using the financial instruments, to facilitate capital flows. The framework of the financial market integration in the Shanghai Economic Zone is presented in table 11.5.

The arrangement of financial integration was actually to guarantee the horizontal movement of the capital without going up the bureaucratic hierarchy to the provincial authorities and down again to communicate with their neighbouring counterparts The market is divided into two parts: a visible market, where persons concerned meet and negotiate, operates half-day per week, and an invisible market, where persons concerned can communicate but do not necessarily meet, operates for the rest of the time.

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[111]. According to the China's financial system, capital used to move vertically before the economic reform the central government allocated the capital to the provincial government and the local government could hardly borrow from or lend to the neighbouring provinces.

Information exchange is also performed. When the invisible market operates, banks' personnel may contact each other for potential deals. Apart from the half-day operation the visible market can open whenever necessary.

Table 11.5 Framework of Financial Market Integration in the Zone

Administrative level	Organization
county-level	headed by the agricultural banks and centred in counties. The co-ops in the rural area facilitate borrowing and lending among themselves.
medium-city level	headed by the commercial banks in medium cities. The banks and other financial institutions join together to facilitate capital flow among themselves.
large-city level	headed by the commercial banks in large cities. The banks join together to facilitate the capital flow among themselves.

Notes:
1. Co-ops are credit agencies in the countryside. Their business is to take deposits and to extend loans.
2. Under the central bank (The People's Bank of China), there are agricultural banks (borrowing and lending in agriculture), construction banks (borrowing and lending capital for construction), commercial banks and the Bank of China (for foreign currency transactions) as well as other financial institutions. In the rural areas, there are financial co-operatives (co-ops) for the villages and towns where people can hardly get access to the banks mentioned above.

The significance of such a market integration lies in the fact that the financial market previously fragmented by administrative boundaries has now been re-organized. Transactions across provincial boundaries have now become possible.

Moreover, "economic means", instead of administrative orders

which were usual in the past, are used within the framework of the financial market to promote capital flows. The financial instruments used, other than direct borrowing and lending, include discount[112] and rediscount,[113] bill acceptance, issuance of bonds and stocks. The interest rate and duration of borrowing and other information are all listed in the market. In the late half of 1987, 150 hundred million RMB was "created" through direct or indirect borrowing and lending.[114]

Another very important event which shows capital movement in the Shanghai Economic Zone is the establishment of the "Bank of Communications" to play some role as a regional bank. This bank breaks through the old banking framework because it is not a specialized bank but a "comprehensive" bank. The specialized banks, such as Bank of China which is specialized in foreign trade and external relations, have a centre-local network. Local branches of these specialized banks have to be under the control of the centre. But the "Bank of Communications" has a relatively free hand with respect to branch office facilities, establishment of accounts, and lending. The bank was established as a joint-stock corporation with a capital of 2.6 billion yuan RMB; 50% of its stock is held by the national government, at least 25% by the regional government, 15% by other corporations, and at most 10% by private individuals. To allow private participation in the banking sector, though still small in percentage, was quite a surprise to many.

11.4 Case 3: the Machinery Industry - Single Product Integration

The machinry industry is one of the important industries in the Shanghai Economic Zone. Table 11.6 shows 1983 statistics on the machinery industries in the Shanghai Economic Zone. The table indicates the general situation of the machinery industry in the Zone.

The statistical data is consistent with our previous conclusion: the machinery industry is, like other industries, widely spread over the area, and there were quite a number of small machinery enterprises.

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[112]. Discount as a financial instrument started as early as 1981 in the Agricultural Bank Shanghai.

[113]. Re-discount started on April 1 1986. Until the end of that year, transactions amounted to 921 (cases), 5.36 hundred million RMB in total. For details see Wenwei Bao May 7 1987.

[114]. Zhou Jon-kan, a journalist who is specialized in the Shanghai Economic Zone, has written an article entitled A Glance at the Money Market of the Shanghai Economic Zone in the magazine Outlook Weekly June 8 1987.

Prior to 1983, there were no plans for integration in the machinery industry integration as a whole. There were large numbers of enterprises which did not have to compete at all and which were engaged in overlapping, low-efficiency production.

Table 11.6 Small Machinery Enterprises in the Shanghai Economic Zone, 1983

Province	Enterprises	Production value (mil. yuan)	Profit (mil. yuan)
Shanghai	514	695,324	181,919
Jiangsu	712	378,246	56,428
Zhejiang	341	162,928	26,617
Anhui	340	92,685	7,327
Jiangxi	210	68,623	4,770
Total	2117	1393,195	277,061
Ratio to whole country	24.2%	29%	41%

Source: Japan External Trade Organization.
Note: productivity = profits /no.of enterprises

The approach of integration in machinery industries is different from integration in the bike industry. Integration started from individual products. A new pattern of specialization emerged inside the Zone as well as between the Shanghai Economic Zone and provinces outside the Zone. There are now industrial associations in the Shanghai Economic Zone for individual commodities of the machinery industry, such as fasteners, bearings, oil and machine parts, and there are associated companies for welders, measuring equipment, cutting tools and valves.

Fasteners are simple products which do not require complicated production processes. The integration scheme allows greater effort to be put into improving quality and developing new items. The technical level for bearings is low. Therefore they are produced by a large number of scattered factories. Integration has thus enabled improvement to be realized by eliminating inferior products. Various joint conferences are being held

to exchange information and to prepare surveys and tests on production, trade and technology. A comprehensive production system is thus taking shape. To facilitate the establishment of new plants for the machinery industries in the Zone, advanced and high grade products are being now promoted and low-level redundant production eliminated.

11.5 The Case of the Oriental Textile Corporation and Other Cases

The Case of the Oriental Textile Corporation - Joint Venture

The Oriental Textile Corporation as a case of economic integration is different from our case of bike industry integration. It is actually a trans-provincial organization which was established to break down the vertical mobility model.

As a joint venture, it was established in September of 1985. The Corporation is actually a shareholder-company and the joint-meeting is the decision-making body. Usually the bigger the shareholder is, the more influential he is. The principle of "joint responsibility" is reflected in this Corporation.

There are 158 textile companies in the Shanghai Economic Zone which contributed to the Corporation financially and 20 million RMB had been raised at the outset, with some financial support from the Ministry of Textiles. 12 production projects were established within the Zone to ensure the procurement of raw materials and improve the marketing of the products, especially marketing abroad.

To encourage competition, the Corporation itself opened a bazaar, which is called a "window" for the textile products of the related companies. Consumers can now see and compare the price and quality of the products produced in different provinces.

The business of the Corporation covers a wide range. Apart from some production projects, the Corporation attempts to establish cooperative relations with some raw material producing bases and to provide service for the textile industries in the Zone. There are three branches of the Corporation which were located in Beijing, Amoi and Suzou respectively. Beijing branch is mainly involved in technology research and development; Amoi branch is mainly involved in promoting export via Amoi and Hong Kong, and Suzou branch is involved in technology research and development. Amoi branch is also involved in wholesale and retail of the textile products. Therefore the basic function of the Corporation is to better utilize the existing production capacity in the textile industry by promoting coordination in supply, production and marketing.

Other Cases

There are also many other cases which show the benefits of economic integration One case, provided by Japan External Trade Organization (JETRO),[115] shows the development of the division of labour based on comparative advantage between Xuzhou and Shanghai. Xuzhou, a city in Jiangsu province has all the conditions for the development of products such as cement, sheet glass, marble, and gypsum, but has been short of funds. It has therefore lagged behind in production, technology and facilities The Shanghai Building Materials Supply Corporation collected 11 million yuan in funds to upgrade 11 kilns in nine Xuzhou cement factories into modern mechanized facilities This is a case of capital flow and technology diffusion As a result, there is an increase in cement production capacity of over 500,000 tons per year Quality was also improved and consumption of coal as source of energy was reduced by 15%. Shanghai has established similar associated cement producing bases in Jiangsu, Zhejiang, Anhui and elsewhere to cover the shortage of cement as a raw material In this way Shanghai is able to concentrate on some high-technology products as a result of the division of labour Plants are being relocated, technical cooperation is being extended, and production of parts is being subcontracted out

Another case is that of the co-operative production of wristwatches The Shanghai No 3 Wristwatch Factory has been joined with by the Hefei Wristwatch Factory - a factory in Anhui province A total of "70 engineers eight times"[116] were sent to solve problems in the processing, technology, quality and inspection of the branch factory's watches. In 1985, the Hefei Wristwatch Factory produced 580,000 "Jewelflower" watches and achieved its profit target of 11 85 million yuan Out of this, 9 45 million yuan was paid in taxes, twice the level of the previous year [117]

The Shanghai Light Industry Corporation is also reportedly engaged in associated production of printing machines and currency making machines with factories in Wuxi and Shazhou The Hangzhou Boiler Factory has the country's largest plate bender and can produce giant cylindrical boilers for power stations, but lacks flaw detection equipment

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[115] China Newsletter No 71, p 15

[116] "70 engineers 8 times" literally means that if there are 70 engineers, each of them went 8 times But some engineers went there less than 8 times and some more

[117] China Newsletter No 71, p 14

and specialized welding equipment. The Shanghai Boiler Factory, on the other hand, has the flaw detection equipment and specialized welding capacities. The two have now joined together.

11.6 General Implications of the Cases: An Analysis

Looking back at these case studies, some general implications of integration in the Shanghai Economic Zone may be summed up, and the summary actually follows two lines: the first line follows the theme that these cases present examples for future economic integration in the Shanghai Economic Zone, whereas the second concentrates on the theme that there are benefits in integration.

As a matter of fact, a framework of costs and benefits of economic integration has already been provided in Chapter 1.[118] In simple terms, it is convenient to think of the benefits of economic integration as being removal or reduction of constraints for desirable structural changes which will lead to economic growth. Constraints, as described, include the non-availability of raw materials, skilled labour, technology etc. Naturally, a limited market can also be considered as a kind of constraint.

If we now look at the case of integration in the bike industry, the benefits for the Shanghai bike factories are the availability of raw materials, and the expanded market for the products, while for the other factories involved in the integration scheme, the benefits are the availability of technology. In the case of the Oriental Textile Corporation, the benefits for the members of the joint venture are actually the availability of market for both input and output. Joint efforts will enable some raw materials to be available for production, and the bazaar offered by the Oriental Textile Corporation is an outlet for domestic competition while the role Amoi plays certainly helps to export. In the financial sector, an enlarged financial market in the zone is taking shape by reducing the restrictions on horizontal capital movements. The benefits of the integrative scheme for machinery industry are the gains from specialization and the improvement of efficiency by eliminating redundant production.

What are the implications of these cases for the future integration in the Shanghai Economic Zone?

First, the case of integration in the bike industry is found especially instructive and many of the observations on that case apply to other cases. The important implication of the bike production integration lies in the diffusion of technology by the Shanghai Bike factories. This is a kind of "spread effect" - transmission of improved skills, capital and technology

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[118]. See **1.6 Economic Integration: Costs and Benefits**.

from the developed area to the less developed area to minimize the technology gap within the enlarged market Shanghai was able to specialize in one or other advanced type of the commodity by subcontracting the less advanced type of production among the existing factories in the neighbouring area. This could be an important pattern for future integration in the Shanghai Economic Zone, as well as in other regions Given the difficulty in closing down all the inefficient factories, technological improvements seem easier and more feasible The case of wrist-watch integration in the Zone follows exactly the same line Other industries which could follow this line of technology diffusion include the refrigerator industry, the TV industry and other consumer goods industries

Secondly, single commodity integration and/or sector integration are typical in the Shanghai Economic Zone Bike production integration and wristwatch production integration are two relevant cases for sector integration. Machinery industry integration may serve as an example of single product integration Economies of scale are realized from cooperative production by some factories specializing in the production of components or from sharing facilities, equipment and labour with enterprises involved in other activities to ensure their full utilization Since more comprehensive integration seems unlikely to occur in the near future, single product or sector integration could be a promising form of integration at this stage for the Shanghai Economic Zone

The implication of the case of the Oriental Textile Corporation is that the investment is on a voluntary basis and joint stock is the organizational principle. Many of the reform measures as of today seem only to rationalize the planning system of the national economy rather than to replace bureaucratic forms of allocation with market relations. In this regard, using share-holder system to manage the supply, production and marketing seems to address directly the integration issue By encouraging the development of important cooperative joint ventures, the administrative barriers are supposed to be bypassed and the economic integration is to be enhanced. Therefore joint ventures as mutual investments may help dismantle the vertical mode of factor movement The Bank of Communications in the case of financial market integration is yet another such example

For the case of financial market integration, the implication is that similar integration policy and organizational structure at different administrative levels (county, municipality and province) for horizontal linkage would be possible in the labour market, if not in the commodity market which is more complex

While the costs of underutilization, inferior quality, non-standardization, non-cooperation etc. can not be calculated exactly, the benefits from the progress in economic integration are obvious. In both the bike industry and the textile industry cases, there are economic benefits in terms of more output (or better output) and profits, not to say motivational effects - easier acquisition of things that were thought not attainable previously.

All these, however, do not mean that the economic integration pattern is the optimal. Back to the case of bike sector integration. It appears that the integration in the Shanghai Economic Zone follows the pattern of realizing economies of scale by improving the existing production network. Some factories are specializing in production of components by subcontracting; facilities and technology are being shared to ensure full utilization. But the economic costs of land, labour, materials and transport are much higher in large cities as has been mentioned earlier in Part 2. The economic costs of production for the Shanghai bicycle factory in its present location are at least 10 - 20 yuan greater than if it retained the same management level but was located in a nearby medium-sized city such as Suzhou. There incurs an efficiency cost which has to be borne by the grouping or by the nation as a whole. This raises two issues which are inter-related: to improve the existing inefficiency of duplication situation and to project new investment to realize better economic consequence.

While these cases in the Shanghai Economic Zone indicate some benefits of economic integration, they, however, do not claim that, due to the existence of the Shanghai Economic Zone, economic integration has been fully realized at the commodity level or even at the sector level; nor do these case studies claim that, economic integration is entirely attributable to the establishment of the Shanghai Economic Zone. This would be a naive claim; the general policy of the central government to encourage horizontal ties[119] would undoubtedly have pushed the integration even without the Shanghai Economic Zone. Nevertheless the Shanghai Economic Zone does play its role as a catalyst in promoting economic integration.

According to recent statistical data, horizontal linkages have developed rapidly. Table 11.7 and Table 11.8 are the summary of enterprises involved in the "horizontal linkage scheme" in 1987 and in 1988 respectively in the Shanghai Economic Zone.

In the first column the figures for total enterprises and for the

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[119]. In March 1986, the State Council issued some regulation for facilitating the horizontal relations. The document gave detailed policy in terms of goal, raw material arrangements, financial settlement and taxation.

enterprises involved in the scheme are both mentioned for comparison. As usual, the gross output is expressed in the local currency (RmB).

Table 11.7 Summary of Enterprises Involved in the Integration Scheme in the Shanghai Economic Zone (1987)

Province	Enterprises (total/involved)	Capital RMB	Gross Output RMB	Profit RMB
Shanghai	9,059/1,804	236,421	496,286	68,026
Jiangsu	38,985/ 238	57,700	295,800	27,000
Zhejiang	41,857/ 494	54,152	187,784	17,162
Anhui	20,827/ 282	9,663	20,420	1,652
Jiangxi	14,654/ 57	5,726	18,957	1,836
Fujian	11,349/ 210	34,369	34,369	3,488

Source: the Statistical Yearbook of the Shanghai Economic Zone 1989.

Table 11.8 Summary of Enterprises Involved in Integration Scheme in the Shanghai Economic Zone (1988)

Province	Enterprises (total/involved)	Capital RMB	Gross Output RMB	Profit RMB
Shanghai	9,668/1,733	67,253	1008,953	118,565
Jiangsu	38,853/ 350	146,229	687,208	611,745
Zhejiang	42,202/ 416	66,630	205,538	19,066
Anhui	21,587/ 60	7,135	17,596	1,340
Jiangxi	15,163/ 47	8,002	31,279	3,316
Fujian	11,792/ 221	42,449	122,979	9,143

Source: The Statistical YearBook of Shanghai Economic Zone, 1989. China's Industrial Statistics Year Book 1989.

Notes: 1. Total number of enterprises refers to the number of the enterprises in the province. This is compiled on the China's industrial statistics. Number of the enterprises involved refers to the number of enterprises involved in the "horizon

tal linkages".

2. The capital, gross output, and the profit refer to the capital, gross output, profit of the enterprises involved in the "horizontal linkages schemes" in terms of RMB.

These tables are official statistics on "horizontal linkages". The data is admittedly rather rough and too simple for any in-depth analysis. There are, however, still some observations which are relevant to our study.

We can see that, apart from in Shanghai for which the figure of enter-prises involved in the horizontal linkages is relatively large, the figures for other provinces are not very significant in absolute terms. It appears that Shanghai is more active for the horizontal relations probably because, as a city, Shanghai needs raw materials as well as an outlet for its products. On the whole the production value and the number of the enterprises involved in "horizontal relations" are still rather small and there are fluctuations as some 1988 figures are lower than the 1987 figures. This shows that the economic integration in the Shanghai Economic Zone and accordingly in China as a whole is still in its initial stage. Furthermore, it should also be pointed out that the "horizontal linkage" in the official sense does not cover all dimensions of our integration concept - it merely refers to intra-provincial joint ventures and direct investment or trade is excluded. Nevertheless, the fact that some statistical data is available is an important indication of the attention from the central government to the issue of economic integration.[120]

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[120]. There are reports about "horizontal relations". A Beijing Review (No. 12, 1988) report says that of 72 cities chosen by the state to try comprehensive reform of the economic structure, 66 have extended their jurisdiction over the surrounding counties, allowing for greater integration. The cities have broken administrative barriers, and encouraged trans-departmental and trans-regional cooperation. In that report, the Qingdao Soft Drinks Factory was mentioned. It has entered into cooperation with 82 factories throughout the country, forming a beverage enterprise group that has an annual production of 250, 000 tons.

EPILOGUE

The traditional economic integration theory concentrates on the pros and cons of a trading bloc. By reducing tariffs among custom union members, benefits are supposed to derive from such a union scheme.

The present study, however, examined the integration theory from another angle: economic integration was examined as a device for development. Economic integration first brings changes in economic structure. These changes in economic structure will enable a more rational allocation of resources to take place and will eventually bring economic benefits. The theoretical framework presented in this study in fact attempts to re-examine the established literature on economic integration.

Basically, any theory must be tested through replications of the findings in a second or even third case, where the theory specified that the same results should occur. The argument that economic integration can be a device for development has to be submitted to test. In other words, such an argument will have to be confronted with integration reality, especially the reality as expressed in the statistics.

The experience of the EC has been summarized, not only for testing the theoretical framework itself, but also for analytical purposes later on. The major part is understandably the economic integration in China: What is the difference between integration within a nation and integration among nations? More generally, where does a nation like China fit into the story of economic integration?

Certainly for a large country like China, the allocation of production between regions is an issue as crucial as international trade, or even more crucial, given the fact that international trade occupies a relatively small part of the total GNP of China. To understand the unique structure of the economy is thus an important starting-point.

We first examined the fragmentation of the Chinese economy by presenting the commodity and factor mobility scenario. The fragmentation and duplication of the industrial systems has then been outlined and highlighted. Both the fragmentation and the duplication of the economic activities served to support the central theme: until recently the national market of China is not integrated economically. The costs of such an irrational situation, though not quantified precisely, have, however, been identified.

As our detailed study suggests, apart from the influence of the self-sufficiency policy pursued in the past, the transportation system, recent

decentralization policy measures, especially the revenue-sharing fiscal arrangements, the absence of sound market relations with prices as signals, and, last but not least, the vested interests of localities are all explanatory factors for lack of integration in China.

To promote economic integration will therefore require action on several fronts: to have systemic price reform so that prices will give the right signals for rational allocation of resources, to improve transportation and commerce on which integration depends, and to have more policy measures to ensure economic integration.

Of fundamental importance will be systemic reform. It is true that the Chinese economy has introduced the market mechanism in many ways and there is an expanding private sector. However, the price reform as in most centrally planned economies is still in a dilemma: if the price reform moves further, inflation is hardly avoidable, which is likely beyond the public tolerance. Reforms for resource allocation have only rationalized the administrative planning system rather than to replace, to a large extent, bureaucratic forms of allocation with market relations. But market relations are crucial to the success of economic integration in the long run, especially for a large country like China. As Xue Muqiao, a well-known Chinese economist, said:

> "The state has no way of establishing economic ties with several million collectives except through a commodity exchange in which each side satisfies the needs of the other with its own products. During the exchange, each side has to consider its economic interests."[121]

To emphasize that market relations are important for integration in China does not mean that integration through policy measures is not so important. On the contrary, under the current situation it is important to have more policy measures to promote integration. If we look at the 1992 Single Market in Europe, we can see that integration has been promoted by many policy measures behind which there are negotiations and compromises. The same should be true for integration in China. Some policy measures are necessary anyway. As suggested by the World Bank report, "the central government might consider legal measures to back up its

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[121]. Xue China's Socialist Economy p.62. Foreign Languages Press Co. Beijing 1981.

existing general prohibition of barriers to interlocality trade, including possibly the establishment of a special regulatory institution, with the power to levy large fines."[122]

There are also other exogenous factors which can be of importance in determining the success of integration. Foremost among these factors is the presence of a developed infrastructure. Transportation should be given high priority because greater industrial specialization usually involves a very large increase in inter-provincial and inter-regional transport of industrial goods.

Since the establishment of the Shanghai Economic Zone, transportation has aroused attention: the building of Shanghai-Nanjing and Shanghai -Hanzhou double-railway; the re-opening of the internal canal; the facilitating of cooperation among the four ports (Shanghai, Ningbo, Zhangjiagan and Nantong); and the repairing of the road.

On the other hand, the difficulties of integration cannot be underestimated, and the prospects are by no means rosy. It should be realized that the existing patterns of production and trade in the national economy are not such that the mere lifting of barriers to promote horizontal relations would in all cases realize immediate benefits. It is only in the long run, when the provinces involved create a new complementary pattern of production, the benefits become important. What is crucial, though, and what does not yet appear to be happening, is that new industrial investments should become more specialized and consider more the locational and scale factors.

As part of the economic reform, promotion of economic integration in general depends largely on the success of the reform as a whole. As Michael Ellman pointed out correctly:

> "Particularly important factors (for successful economic reform) would appear to be a supportive political environment, a compatible macro-economic situation, micro-economic consistency, appropriate institutional changes and the comprehensive nature of the reform"(Michael Ellman, p.78).

This statement has summed up the macro-factors that will influence the economic integration of China as a whole and the Shanghai Economic Zone in particular.

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[122]. World Bank: China Long-Term Development Issues and Options p.6.

The first part of this study has included some theoretical discussion. While theoretical speculation alone cannot prove that economic integration is a device for development, the available evidence from the empirical studies, however, does permit us to draw a fairly reliable conclusion that economic integration is important for economic benefits.

The former Premier of China Zhao Ziyang mentioned the term "integration" in his report to the national Congress in 1982, saying that the economic reform was intended to "break down the strong barriers between different localities and departments and, in accordance with the needs of co-ordination among specialized departments and of production, develop economic integration."[123]

At a first sight, we might expect any connection between the EC Common Market (integration of several countries) and China's national market (integration within a country) to be tenuous. The EC Common Market is a multi-country model with market-oriented economies whereas China, in spite of all its recent reforms, remains basically a planned economy. Moreover, China is a sovereign country with provinces under the control of the central government. In contrast, the EC countries are independent countries and the supranational arrangement is minimal as of today. Finally, the political systems are obviously different.

Despite these important differences between EC integration and that of China, we have seen that these two do have enough in common to make some comparative analysis set out in this study a worthwhile and fruitful effort. We can find at least the following common aspects:

- the purpose: maximize prosperity by improving resource allocation;

- the theoretical rationale: economies of scale, the division of labour and competition;

- the mechanisms: integration through market forces and integration through policy measures;

- the constitutional arrangements and the institutional arrangements;

- some general principles such as spiral progress, joint responsibility and flexibility.

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[123]. Zhao Ziyang Report to the National People's Congress 1982, p.52.

In fact, the lines between international trade theory and regional economics are becoming blurred in some important cases, one of which is the 1992 in Europe. If "1992" does what it is supposed to do, then, "it will make less and less sense to think of relations between its component nations in terms of the standard paradigm of international trade. Instead the issues will be those of regional economics - and it will help if we actually have some interesting regional economics to offer when the time comes" (Krugman, 1991, p.12). A bridge between integration among nations and integration in a nation is obviously necessary.

Needles to say, integration is "no panacea for all economic ills, nor even indispensable to success, but there are convincing reasons ... for supposing that significant economic benefits may be derived from well-conceived and well-implemented arrangements for economic integration"(Robson, 1987, p.4). If integration is accepted as a device for development, then the issue of how to integrate becomes our major concern. "Feel for the way out in the water step by step" is said to be the motto for the reformers in China. But why not look into the experience of others? If this question should be addressed positively, the experience of the EC should then be of some relevance.

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CURRICULUM VITAE

Weixin Huang was born in Shanghai China on January 10,1948. He got his first M.A. (Economics) in Shanghai University of Finance and Economics and has become a lecturer in the Department of World Economy ever since. He got his second M.A. (International Relations) in International University of Japan, Japan. He has worked for the World Bank for its China projects, and has written articles and published books on such topics as shareholder system in China, stock market, European Monetary System etc. He has also translated a book on Conference Interpretation. In 1986, he was invited by Erasmus University Rotterdam as the first fellow from China. After his stay in the Netherlands, his project was accepted as a Phd research project and he came back to the Netherlands in 1989 for the present study. He gave lectures for Asia Study courses in Erasmus University Rotterdam and in Royal Tropical Institute for China courses. In 1990, he also joined Bank Mees & Hope for Asian projects.

Dit onderzoek beoogt ten eerste een analytisch kader te genereren voor integratie. Het laat zien dat economische integratie - in landen zelf of tussen landen - de markt vergroot en winsten oplevert als gevolg van economische schaalvoordelen, sterkere concurrentiedruk, en voortgaande arbeidsdeling. Dit analytische raamwerk wordt vervolgens getoetst aan de hand van de situatie in de EG.

Het tweede deel van het boek behandelt het vraagstuk van integratie in China: de opzet van "economische zones", het verschil tussen "economische zones" en "economische samenwerkingsgebieden", en het ontstaan en de ontwikkeling van de "Shanghai Economische Zone". Ook worden enkele beleidsopties besproken zoals die zijn voortgekomen uit de integratie binnen de EG.

In deel drie wordt een "twee-stappen empirische test" toegepast - eerst voor de "Shanghai Economische Zone" alleen en daarna voor China als geheel. Hieruit blijkt duidelijk dat er sprake is van gebrek aan integratie, of zoals geconstateerd in deel twee, dat de Chinese economie veel te gefragmenteerd is. De factoren die geleid hebben tot het gebrek aan integratie zijn met name de "self-sufficiency" politiek uit het jongste verleden, het transportsysteem, recente decentralisatiemaatregelen zoals de invoering van het principe van winstdeling bij bedrijven, de afwezigheid van marktprijzen en een vrije markt, en ook de sterke machtspositie van lokaal georiënteerde belangengroepen. Een grotere economische integratie in China zal voor de toekomst veel veranderingen op verschillende fronten tot gevolg hebben, waarbij de ervaringen in de EG van belang zijn.

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There is little doubt that regional economic integration is becoming a prevailing topic in today's world the 1992 Single Market in Europe, the Canada-US Free Trade Agreement, ASEAN and other proposals for regional economic integration in East and Southeast Asia etc

While economic integration as such is becoming important, a related topic is what is the difference between economic integration in a nation and economic integration among nations? More specifically, where does a nation-state like China fit into the story of economic integration? This book will touch upon this topic

Some empirical study has been undertaken to show that China has trade barriers against the outside world, but does not have free trade within its national boundaries Can China develop further by encouraging more integration of its national market and how can China use integration as a development device? These are the questions to which the author intends to give answers For that purpose, experience of the EC Common Market has been carefully examined to help throw light on the topic of integration in China

The 'Nijmeegs Instituut voor Comparatieve Cultuur- en Ontwikkelingsstudies' (NICCOS - Nijmegen Institute for Comparative Studies in Development and Cultural Change) of the Catholic University of Nijmegen, The Netherlands, was established in 1989 in order to co-ordinate and stimulate the research in the Third World and in peripheral regions of the industrialized countries carried out by the Department of Cultural and Social Anthropology, the Department of Geography of Developing Areas, the Third World Centre, the Centre for Women's Studies, the Missiology Department and the Department of Middle East Languages and Cultures